DOCUMENT RESUME

ED 383 543 SE 056 133

AUTHOR	Allen, Tim
TITLE	Animal Welfare Legislation, Regulations, and Guidelines, January 1990-January 1995. Quick Bibliography Series: QB 95-18.
INSTITUTION	National Agricultural Library, Beltsville, MD.
REPORT NO	ISSN-1052-5378
PUB DATE	Mar 95
NOTE	69p.; Updates QB 94-23.
AVAILABLE FROM	U.S. Department of Agriculture, National Agricultural Library, Public Services Division, Room 111, Beltsville, MD 20705.
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Agricultural Production; Animal Facilities; Animal Husbandry; *Animals; Annotated Bibliographies; Biological Sciences; Environmental Education; Ethics; Experiments; *Federal Regulation; Foreign Countries; Higher Education; *Laboratory Animals; Legislation; *Livestock; Policy; Resources; *Scientific Research; State Regulation
IDENTIFIERS	*AGRICOLA; *Animal Welfare

ABSTRACT

Citations in this bibliography are intended to be a substantial resource for recent investigations (January 1990-January 1995) on animal welfare policy and were obtained from a search of the National Agriculture Library's AGRICOLA database. A representation of the search strategy is included. The 244 citations range in topic and include animal welfare, regulations, standards, law, policy, politics, research, animal experimentation, laboratory animals, cages, agricultural biotechnology, commercial farming, agricultural policy, livestock, inspection, animal husbandry, veterinary medicine, animal testing alternatives, cosmetics, environmental impact, bioethics, marine mammals, and wild animals. Abstracts are provided for some, but not all, entries. Entries include National Agriculture Library call numbers, title, author, publisher or distributor, language, descriptors, and abstract. The citations are indexed by author and subject. An appendix contains 30 references to codes of practice on animal welfare and international regulations. (LZ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

United States
Department of
Agriculture

National
Agricultural
Library

Beltsville
Maryland
20705

ED 383 543

ISSN: 1052-5378

Animal Welfare Legislation, Regulations, and Guidelines

January 1990 - January 1995

QB 95-18

Quick Bibliography Series

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Bibliographies in the Quick Bibliography Series of the National Agricultural Library, are intended primarily for current awareness, and as the title of the series implies, are not indepth exhaustive bibliographies on any given subject. However, the citations are a substantial resource for recent investigations on a given topic. They also serve the purpose of bringing the literature of agriculture to the interested user who, in many cases, could not access it by any other means. The bibliographies are derived from computerized on-line searches of the AGRICOLA data base. Timeliness of topic and evidence of extensive interest are the selection criteria.

The author/searcher determines the purpose, length, and search strategy of the Quick Bibliography. Information regarding these is available upon request from the author/searcher.

Copies of this bibliography may be made or used for distribution without prior approval. The inclusion or omission of a particular publication or citation may not be construed as endorsement or disapproval.

To request a copy of a bibliography in this series, send the title, series number and self-addressed gummed label to:

U.S. Department of Agriculture
National Agricultural Library
Public Services Division, Room 111
Beltsville, Maryland 20705

Animal Welfare Legislation, Regulations, and Guidelines

January 1990 - January 1995

Quick Bibliography Series: QB 95-18
Updates QB 94-23

244 citations from AGRICOLA

Tim Allen
Animal Welfare Information Center

Animal Welfare

National Agricultural Library Beltsville, Maryland 20705-2351 March 1995

National Agricultural Library Cataloging Record:

Allen, Tim
Animal welfare legislation, regulations, and guidelines.
(Quick bibliography series ; 95-18)
1. Animal welfare – Law and legislation – Bibliography.
2. Animal welfare – Standards – Bibliography. I. Title.
aZ5071.N3 no.95-18

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-5881 (voice) or (202) 720-7808 (TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

United States Department of Agriculture | National Agricultural Library | Public Services Division | Beltsville, Maryland 20705

Document Delivery Services to Individuals

The National Agricultural Library (NAL) supplies agricultural materials not found elsewhere to other libraries.

Filling requests for materials readily available from other sources diverts NAL's resources and diminishes its ability to serve as a national source for agricultural and agriculturally related materials. Therefore, NAL is viewed as a library of last resort. Submit requests first to local or state library sources prior to sending to NAL. In the United States, possible sources are public libraries, land-grant university or other large research libraries within a state. In other countries submit requests through major university, national, or provincial institutions.

If the needed publications are not available from these sources, submit requests to NAL with a statement indicating their non-availability. Submit one request per page following the instructions for libraries below.

NAL's Document Delivery Service Information for the Library

The following information is provided to assist your librarian in obtaining the required materials.

Loan Service — Materials in NAL's collection are loaned only to other U.S. libraries. Requests for loans are made through local public, academic, or special libraries.

The following materials are not available for loan: serials (except USDA serials); rare, reference, and reserve books; microforms; and proceedings of conferences or symposia. Photocopy or microform of non-circulating publications may be purchased as described below.

Document Delivery Service — Photocopies of articles are available for a fee. Make requests through local public, academic, or special libraries. The library will submit a separate interlibrary loan form for each article or item requested. If the citation is from an NAL database (CAIN/AGRICOLA, *Bibliography of Agriculture*, or the NAL Catalog) and the call number is given, put that call number in the proper block on the request form. Willingness to pay charges must be indicated on the form. Include compliance with copyright law or a statement that the article is for "research purposes only" on the interlibrary loan form or letter. Requests cannot be processed without these statements.

Charges:

- Photocopy, hard copy of microfilm and microfiche – $5.00 for the first 10 pages or fraction copied from a single article or publication. $3.00 for each additional 10 pages or fraction.
- Duplication of NAL-owned microfilm – $10.00 per reel.
- Duplication of NAL-owned microfiche – $ 5.00 for the first fiche and $ .50 for each additional fiche per title.

Billing – Charges include postage and handling, and are subject to change. Invoices are issued quarterly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161. Establishing a deposit account with NTIS is encouraged. *DO NOT SEND PREPAYMENT.*

Send Requests to:

USDA, National Agricultural Library
Document Delivery Services Branch,PhotoLab
10301 Baltimore Blvd., NAL Bldg.
Beltsville, Maryland 20705-2351

Contact the Head, Document Delivery Services Branch in writing or by calling (301) 504-5755 with questions or comments about this policy.

ELECTRONIC MAIL ACCESS FOR INTERLIBRARY LOAN (ILL) REQUESTS

The National Agricultural Library (NAL), Document Delivery Services Branch accepts ILL requests from libraries via several electronic services. All requests must comply with established routing and referral policies and procedures. The transmitting library will pay all fees incurred during the creation of requests and communication with NAL. A sample format for ILL requests is printed below along with a list of the required data/format elements.

ELECTRONIC MAIL - (Sample form below)

SYSTEM	ADDRESS CODE
INTERNET	LENDING@NALUSDA.GOV
EASYLINK	62031265
ONTYME	NAL/LB
TWX/TELEX	Number is 710-828-0506 NAL LEND. This number may only be used for ILL requests.
FTS2000	A12NALLEND
OCLC	NAL's symbol AGL need only be entered once, but it must be the last entry in the Lender string. Requests from USDA and Federal libraries may contain AGL anywhere in the Lender String.

SAMPLE ELECTRONIC MAIL REQUEST

AG University/NAL ILLRQ 231 4/1/93 NEED BY: 6/1/93

Interlibrary Loan Department
Agriculture University
Heartland, IA 56789

Dr. Smith Faculty Ag School

Canadian Journal of Soil Science 1988 v 68(1): 17-27
DeJong, R. Comparison of two soil-water models under semi-arid growing conditions
Ver: AGRICOLA
Remarks: Not available at IU or in region.
NAL CA: 56.8 C162

Auth: C. Johnson CCL Maxcost: $15.00

MORE

TELEFACSIMILE - Telephone number is 301-504-5675. NAL accepts ILL requests via telefacsimile. Requests should be created on standard ILL forms and then faxed to NAL. NAL does not fill requests via Fax at this time.

REQUIRED DATA ELEMENTS/FORMAT

1. Borrower's address must be in block format with at least two blank lines above and below so form may be used in window envelopes.
2. Provide complete citation including verification, etc.
3. Provide authorizing official's name (request will be rejected if not included).
4. Include statement of copyright compliance if applicable.
5. Indicate willingness to pay applicable charges.
6. Include NAL call number if available.

Contact the Document Delivery Services Branch at (301) 504-6503 if additional information is required.

BEST COPY AVAILABLE

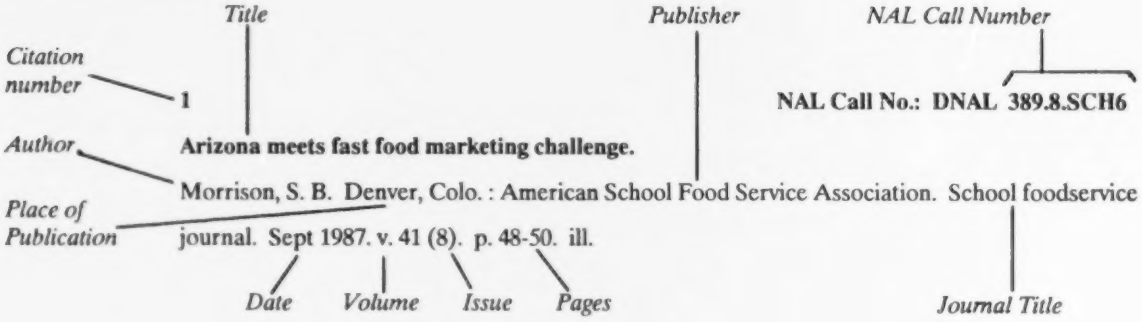
AGRICOLA

Citations in this bibliography were
entered in the AGRICOLA
database between January 1979
and the present.

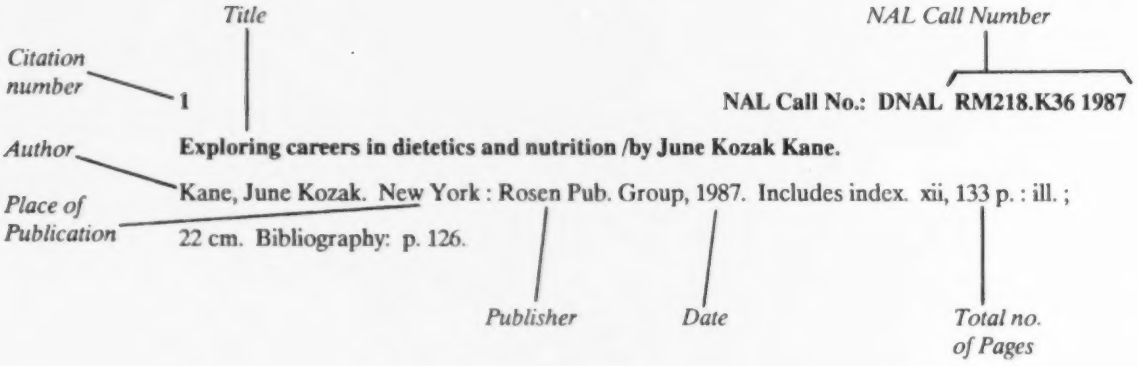
SAMPLE CITATIONS

Citations in this bibliography are from the National Agricultural Library's AGRICOLA database. An explanation of sample journal, book, and audiovisual citations appears below.

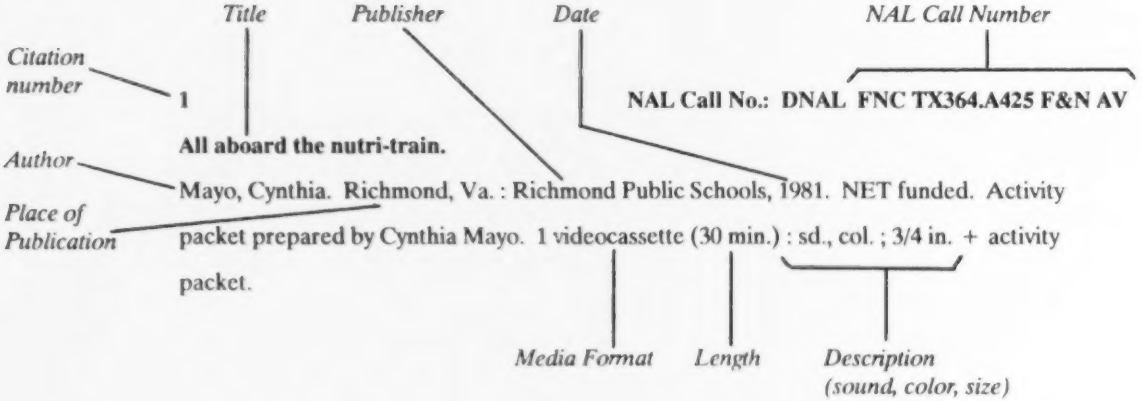
Journal Article:



Book:


Title
NAL Call Number
Citation number
1
NAL Call No.: DNAL RM218.K36 1987
Author
Exploring careers in dietetics and nutrition /by June Kozak Kane.
Kane, June Kozak. New York : Rosen Pub. Group, 1987. Includes index. xii, 133 p. : ill. ;
Place of Publication
22 cm. Bibliography: p. 126.
Publisher
Date
Total no. of Pages

Audiovisual:



Animal Welfare Legislation, Regulations, and Guidelines

Search Strategy

Set	Description
1	law? or regulat? or legislat? or policy or policies or guide?
2	animal?
3	S1 and S2
4	animal (w) welfare or lab? (W) animal? or research or experiment?
5	S3 and S4
6	S5 and py=1990:1995
7	S6 not (genetic (w) regulation)
8	S7 not (physiology (2n) nutrition)
9	S8 not (animal (w) nutrition or drosophila? or honeybee? or guided or temperature (2n) regulation? or asclepias)

NOTE:

A special section--Codes of Practice on Animal Welfare and International Regulations--appears after page 51. This section does not appear in the indices.

Animal Welfare Legislation, Regulations, and Guidelines

1 NAL Call No: SF407.P7T49 1991
The 1985 Animal Welfare Act amendments., 1st ed.;.
Schwindaman, D.
Washington, DC : American Psychological Association ;.
Through the looking glass: issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 26-32; 1991. Includes references.

Language: English

Descriptors: U.S.A.; Animal welfare; Regulations; Usda

2 NAL Call No: HV4701.B8
1990, a look back. Legislators who are making a difference.
Millsaps, R.
Chicago, Ill. : The Society.
Bulletin, the National Anti-Vivisection Society (4): p. 21-26. ill; 1990.

Language: English

Descriptors: U.S.A.; Animal welfare, politics, protection

3 NAL Call No: QD241.T6
Agricultural biotechnology: environmental choices and challenges.
Cordle, M.K.; Young, A.L.
London : Gordon and Breach Science Publishers.
Toxicological and environmental chemistry v. 28 (1): p. 25-23; 1990. Includes references.

Language: English

Descriptors: Biotechnology; Agricultural research; Regulation; Environmental protection; Plant production; Animal production; Food processing

4 NAL Call No: ArUKF1682.A75A37 1990
Agricultural biotechnology from the test tube to the farm.
Hamline University, Advanced Legal Education
St. Paul, MN : Advanced Legal Education, [c1990].
106 p. : ill. ; 30 cm. April 20, 1990.

Language: English

Descriptors: Agricultural biotechnology, Law and legislation, United States; Agricultural biotechnology, Law and legislation, Minnesota; Plant biotechnology, Research, Law and legislation, United States; Plant biotechnology, Research, Law and legislation, Minnesota; Agricultural laws and legislation, United States; Agricultural laws and legislation, Minnesota; Biotechnology industries, Government policy, United States; Biotechnology industries, Government policy, Minnesota; Biotechnology, United States, Patents

5 NAL Call No: aHV4701.A952
Agricultural Research Service, USDA publishes new animal care directives.
Guttman, H.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 1 (4): p. 4, 6; 1990 Oct. Includes references.

Language: English

Descriptors: Committees, usda, directives, animal welfare, bioethics

6 NAL Call No: RA1199.4.I5A44 1994
Alternatives to animal testing new ways in the biomedical sciences, trends, and progress.
Reinhardt, Christoph A.
Weinheim ; New York : VCH,.
xviii, 182 p. : ill. ; 24 cm. On behalf of the Swiss Institute for Alternatives to Animal Testing, SIAT. Contains the main presentations made at the symposium Alternatives to Animal Testing, held at the ETH Zurich, Nov. 30, 1992, reviewed and updated to include developments up to fall 1993. Cf. Preface. Includes bibliographical references and index.

Language: English

Descriptors: Toxicity testing; Animal experimentation

7 NAL Call No: Videocassette no.976
American College of Toxicology composite.
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc
Symposium: Animal Welfare Compliance for Study Directors 1990 : Orlando, Fla.
Closter, N.J. : Production Plus, Inc., [1990?].
2 videocassettes (207 min., 29 sec.) : sd., col. ; 3/4 in. VHS. Proceedings of Symposium: Animal Welfare Compliance for Study Directors, Orlando, Fla., 1990.

Language: English

Descriptors: Animal welfare, Laboratory animals

Abstract: This program was specifically designed to provide information for study directors and also principal investigators to be in full compliance with

USDA animal welfare regulations but is also of value for those involved in animal care. Specific areas required for training under the Act are included in addition to information on the necessity for animal research.

8 NAL Call No: HD1751.C45
Animal advocacy in commercial agriculture: its not new and its has an economic dimension.
Zulauf, C.; Krause, M.
Ames, Iowa? : American Agricultural Economics Association, c1986-.
Choices : the magazine of food, farm and resource issues v. 7 (2): p. 20-21; 1992.

Language: English

Descriptors: U.S.A.; Cabt; Animal welfare; Commercial farming; Livestock farming; Regulations

9 NAL Call No: HV4704.A46 1989
Animal care and use policy issues in the 1990s : NIH OPRR/OACU conference, November 16-17, 1989, Bethesda, Maryland.
National Institutes of Health (U.S.), Office of Protection from Research Risks, NIH Office of Animal Care and Use
Bethesda, Md. : Office of Animal Care and Use, National Institutes of Health, [1989?].
iii, 79 p. : ill. ; 28 cm.

Language: English

Descriptors: Animal welfare; Laboratory animals; Bioethics

10 NAL Call No: HV4913.A54
Animal care and use programs regulatory compliance and education in an age of fiscal constraint. (Educational material for: Animal care and use programs Regulatory compliance and education in an age of fiscal restraint.)
Public Responsibility in Medicine and Research (Association), Tufts University, School of Medicine, Tufts University, School of Veterinary Medicine
Boston, Mass.: PRIM&R.
408 p. : ill. ; 28 cm. Cover title. March 21-22, 1991, Boston, Massachusetts. Includes bibliographical references.

Language: English

Descriptors: Animal welfare, Laboratory animals, Animal experimentation, Animals, laboratory

11 NAL Call No: 1.98 AG84
Animal care tightly regulated.
Hays, S.M.
Washington, D.C. : The Service.
Agricultural research - U.S. Department of Agriculture, Agricultural Research Service v. 39 (12): p. 17; 1991 Dec.

Language: English

Descriptors: Laboratory animals; Animal welfare; Regulations; Public agencies

12 NAL Call No: 472 N42
Animal experiments the American way.
Gavaghan, H.
London, Eng. : New Science Publications.
New scientist v. 134 (1821): p. 32-34, 36; 1992 May16.

Language: English

Descriptors: U.S.A.; Animal experiments; Animal welfare; Legislation; Usda

13 NAL Call No: Z7994.L3A5
Animal pain scales in public policy.
Orlans, F.B.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 18: p. 41-50; 1990 Nov. Includes references.

Language: English

Descriptors: Laboratory animals; Pain

Abstract: Pain scales classify the severity of pain inflicted on laboratory animals from little or none up to severe. A pain scale as part of public policy serves beneficial purposes that promote animal welfare. It can be used to educate people about the two alternatives of refinement and replacement, and the need to reduce animal pain. Furthermore, a pain scale has practical applications: 1) in review procedures for animal welfare concerns; 2) in developing policies on the use of animals in education; and 3) as a basis for collecting national data on animal experimentation, so that meaningful data can be collected on trends in reduction and control in animal pain. So far, only a few countries (including Sweden, the Netherlands, Canada and New Zealand) have adopted pain scales as part of their public policy. Most countries, including the United States, have not yet done so. The history of the development and adoption of pain scales by various countries is described and the case is presented for wider adoption of a

pain scale in countries not currently using one.

14 NAL Call No: S494.5.B563N33
Animal pharmaceuticals.
Terry, M.
Ithaca, N.Y. : National Agricultural Biotechnology Council.
NABC report / (4): p. 157-163; 1992. In the series analytic: Animal biotechnology: opportunities and challenges. Proceedings of the fourth annual NABC meeting, May 1992, College Station, Texas. Includes references.

Language: English

Descriptors: Drugs; Regulations; Biotechnology; Animal experiments

15 NAL Call No: HV4725.U5L4 1990
Animal protective organizations and law enforcement agencies., 4th ed.
Leavitt, E.S.; Halverson, D.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 254-260; 1990.

Language: English

Descriptors: U.S.A.; Animal welfare; Law enforcement; Law

16 NAL Call No: HV4708.R68 1994
The animal research controversy protest, process & public policy : an analysis of strategic issues.
Rowan, Andrew N.; Loew, Franklin M.,1939-; Weer, Joan C.
Pew Charitable Trusts
North Grafton, MA : Center for Animals & Public Policy, Tufts University School of Veterinary Medicine,.
xv, 186 p. ; 29 cm. Sponsorship: the Pew Charitable Trusts. Spring, 1994. Includes bibliographical references (p. 147-160).

Language: English

Descriptors: Animal experimentation; Animal welfare

17 NAL Call No: KF27.A33277 1990f
Animal research facilities protection joint hearing before the Subcommittee on Department Operations, Research, and Foreign Agriculture and the Subcommittee on Livestock, Dairy, and Poultry of the Committee on Agriculture, House of Representatives, One Hundred First Congress, second session, February 28, 1990.
United States. Congress. House. Committee on Agriculture. Subcommittee on Department Operations, Research, and Foreign Agriculture; United States, Congress, House, Committee on Agriculture, Subcommittee on Livestock, Dairy, and Poultry
Washington [D.C.] : U.S. G.P.O. : For sale by the Supt. of Docs., Congressional Sales Office, U.S. G.P.O.; Y 4.Ag 8/1:101-52.
iv, 176 p. : ill. ; 24 cm. Distributed to some depository libraries in microfiche. Serial no. 101-52.

Language: English

Descriptors: Criminal procedure, Laboratories, Animal welfare, Laboratory animals

18 NAL Call No: 41.8 AM3
Animal rights and the veterinarian.
Hannah, H.W.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 196 (5): p. 718-719; 1990 Mar01.

Language: English

Descriptors: Animal welfare; Veterinarians; Law; Legal rights

19 NAL Call No: Videocassette no.972
The Animal Welfare Act philosophy and intent.
Ewald, Bruce H.
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc
Symposium: Animal Welfare Compliance for Study Directors 1990 : Orlando, Fla.
Closter, N.J. : Production Plus, Inc., [1990?].
1 videocassette (14 min., 40 sec.) : sd., col. ; 1/2 in. VHS. Videotape of a presentation at Symposium: Animal Welfare Compliance for Study Directors; presented at the Eleventh Annual Meeting of the American College of Toxicology, Orlando, Fla., Oct. 1990.

Language: English

Descriptors: Animal welfare

Abstract: The history and intent of the Animal Welfare Act and the participatory development of regulations is presented. The specific responsibilities of the IACUC and the study director and principal investigator are outlined. The physiology of the

USDA to refine skills and develop appropriate attitudes through education is described.

20 NAL Call No: SF604.P82 no.144
Animal welfare in New Zealand proceedings from a seminar organised for the State Veterinarians Branch, New Zealand Veterinary Association, Rotorua, June 1992.
Petersen, Gunner V.
Massey University, New Zealand Veterinary Association, State Veterinarians Branch, New Zealand Veterinary Association, Foundation for Continuing Education
Palmerston North, N.Z. : Veterinary Continuing Education, Massey University,.
110 p. : ill. ; 29 cm. (Publication (Massey University. Veterinary Continuing Education) ; no. 144.). Includes bibliographical references.

Language: English

Descriptors: Animal Welfare

21 NAL Call No: aZ5071.N3
Animal welfare legislation and regulation, January 1979-August 1989.
Engler, K.; Swanson, J.
Beltsville, Md. : The Library.
Quick bibliography series - U.S. Department of Agriculure, National Agricultural Library (U.S.). (90-20): 26 p.; 1990 Jan. Updates QB 89-23. Bibliography.

Language: English

Descriptors: Animal welfare; Legislation; Regulations; Bibliographies

22 NAL Call No: aZ5071.N3
Animal welfare legislation and regulations: January 1979-February 1991.
Swanson, J.C.
Beltsville, Md. : The Library.
Quick bibliography series - U.S. Department of Agriculture, National Agricultural Library (U.S.). (91-63): 26 p.; 1991 Mar. Updates QB 90-20. Bibliography.

Language: English

Descriptors: U.S.A.; Animal welfare, legislation, regulations, law, animal experiments, bibliographies

23 NAL Call No: aZ5071.N3
Animal welfare legislation and regulations: January 1989 - January 1994.
Smith, C.P.
Beltsville, Md., National Agricultural Library.
Quick bibliography series - National Agricultural Library (94-23): 56 p.; 1994 Apr. Updates QB 92-35.

Language: English

Descriptors: U.S.A.; Cabt; Animal welfare; Legislation; Regulations; Law; Animal experiments; Bibliographies

24 NAL Call No: aZ5071.N3
Animal welfare legislation and regulations, January 1987 - February 1992.
Smith, C.P.
Beltsville, Md. : The Library.
Quick bibliography series - U.S. Department of Agriculture, National Agricultural Library (U.S.). (92-35): 57 p.; 1992 Mar. Updates QB 91-63. Bibliography.

Language: English

Descriptors: U.S.A.; Animal welfare; Legislation; Regulations; Law; Animal experiments; Bibliographies

25 NAL Call No: aHV4701.A95 no.8 1991
Animal welfare legislation bills and public laws, 1980 - 1988 (includes the Animal Welfare Act and its amendments)., October 1988 (Rev. May 1991).
Clingerman, Karen J.; Gleason, Sean J.; Swanson, Janice C.
National Agricultural Library (U.S.)
Beltsville, Md. : U.S. Dept. of Agriculture, National Agricultural Library; A 17.27:8.
21 p. ; 28 cm. (AWIC series,).

Language: English

Descriptors: Animal welfare

26 NAL Call No: aHV4701.A95 no.2
Animal welfare legislation bills and public laws 1989.
Clingerman, Karen J.; Swanson, Janice C.; Gleason, Sean J.
Animal Welfare Information Center (U.S),National Agricultural Library (U.S.)
Beltsville, Md. : Animal Welfare Information Center, National Agricultural Library; A 17.26:990/1.
15 p. ; 28 cm. (AWIC series ; 2). Updates: Animal Welfare Legislation: Bills and Public Laws 1980-October 1988. January 1990.

Language: English

Descriptors: Animal welfare

27 **NAL Call No: aHV4701.A95 no.11a**
Animal welfare legislation bills and public laws, 1992.
Smith, Cynthia Petrie
National Agricultural Library (U.S.)
Beltsville, Md. : National Agricultural Library,.
13 p. : ill. ; 28 cm. (AWIC series, #11). May 1993.

Language: English

Descriptors: Animal welfare

28 **NAL Call No: aHV4701.A95 no.4**
Animal welfare legislation bills and public laws, January 1990 - June 1990.
Clingerman, Karen J.
National Agricultural Library (U.S.),Animal Welfare Information Center (U.S.)
Beltsville, Md. : U.S. Dept. of Agriculture, National Agricultural Library.
7 p. ; 28 cm. (AWIC series ; no. 4). July 1990. "Preliminary report.

Language: English

Descriptors: Animal welfare

29 **NAL Call No: aHV4701.A95 no.9**
Animal welfare legislation bills submitted to the 102nd Congress, January 1991 - March 1991.
Clingerman, Karen J.
National Agricultural Library (U.S.)
Beltsville, Md. : U.S. Dept. of Agriculture, National Agricultural Library.
6 p. ; 28 cm. (AWIC series,). May 1991. "Preliminary report.

Language: English

Descriptors: Animal welfare

30 **NAL Call No: aHV4701.A95 no.11**
Animal welfare legislation bills submitted to the 102nd congress, January 1992 - June 1992.
Smith, Cynthia P.
National Agricultural Library (U.S.)
Beltsville, Md. : National Agricultural Library,.
7 p. ; 28 cm. (AWIC series. 1, Preliminary report, no. 11). July 1992.

Language: English

Descriptors: Animal welfare

31 **NAL Call No: HV4704.A52 1991**
Animal welfare proceedings of the Animal Welfare Sessions, XXIV World Veterinary Congress, Rio de Janeiro, 1991.
Seamer, John; Quimby, Fred W.
World Veterinary Congress 24th : 1991 : Rio de Janeiro, Brazil.
London : World Veterinary Association, Animal Welfare Committee,.
xiii, 237 leaves : ill. ; 28 cm. Includes bibliographical references.

Language: English

Descriptors: Animal welfare

32 **NAL Call No: S494.5.B563N33**
Animal well-being and biotechnology.
Meeker, D.
Ithaca, N.Y. : National Agricultural Biotechnology Council.
NABC report / (4): p. 77-83; 1992. In the series analytic: Animal biotechnology: opportunities and challenges. Proceedings of the fourth annual NABC meeting, May 1992, College Station, Texas. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Europe; Cabt; Animal welfare; Biotechnology; Regulations; Politics

33 **NAL Call No: KD3424.S9**
Animals and cruelty and law.
Sweeney, Noel
Bristol : Alibi.
xiii, 119 p. ; 20 cm. Includes bibliographical references (p. 113-115) and index.

Language: English

Descriptors: Animal welfare

34 **NAL Call No: HV4725.U5L4 1990**
Animals and their legal rights a survey of American laws from 1641 to 1990., 4th ed.
Leavitt, Emily Stewart
United States, Animal and Plant Health Inspection Service, Animal Welfare Institute
Washington, D.C. : Animal Welfare Institute.
xiv, 441 p. ; 22 cm. Rev. ed. of: Animals and their legal rights / Emily Stewart Leavitt. 3rd ed. 1978. Includes bibliographical references (p. 440-441).

Language: English

Descriptors: Animal welfare

35 **NAL Call No: SF407.P7T49 1991**

Animals in research: public policy determinants., 1st ed.;.
Loew, F.M.
Washington, DC : American Psychological Association ;.
Through the looking glass: issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 11-19; 1991. Includes references.

Language: English

Descriptors: U.S.A.; Laboratory animals; Animal experiments; Regulations; Animal welfare; Perception

36 **NAL Call No: HV4890.A5N49 1991**
Animals in schools animal welfare guidelines for teachers. (Animals in schools, guidelines for teachers 1991.)
New South Wales, Dept. of School Education
Emerton, NSW? : NSW Dept. of School Education?, 1991?
xvii, 139 p. : ill. ; 30 cm. Cover title. Running title: Animals in schools, guidelines for teachers 1991. Produced on behalf of the Schools Animal Care and Ethics Committee.

Language: English

Descriptors: Animal welfare

37 **NAL Call No: HV4708.G37 1993**
Animals, politics, and morality.
Garner, Robert,
Manchester, UK ; New York : Manchester University Press : Distributed exclusively in the USA and Canada by St. Martin's Press,.
ix, 258 p. ; 22 cm. (Issues in environmental politics). Includes bibliographical references and index.

Language: English

Descriptors: Animal welfare; Animal welfare

38 **NAL Call No: aHV4701.A952**
APHIS policy and marine mammals: an interview with Jody Garbe, D.V.M.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 3 (2): p. 1, 4-5; 1992 Apr.

Language: English

Descriptors: Marine mammals; Agricultural policy; Usda; Animal welfare; Regulations; Inspection

39 **NAL Call No: 410 B77**
Assessment of pain in animals.
Bateson, P.
London : Academic Press.
Animal behaviour v. 42 (pt.5): p. 827-839; 1991 Nov. Includes references.

Language: English

Descriptors: Animal welfare; Pain; Assessment

Abstract: Judgements about pain and suffering in animals are required by the law of many countries and by many professional guidelines. Nevertheless, such assessments raise many problems, even in humans. Furthermore, an appeal to continuities between humans and other animals is clouded when, as is still the case, both the evolution and the function of a subjective sense of pain are obscure. Despite these difficulties, the criteria that lead to the judgement that a human is in pain can be generalized with substantial measure of agreement to other animals. This generalization is done on the basis of uncovering comparable mechanisms and comparable behaviour; then the whole cluster of features found in the animal is used to make the judgement. The less similar the animal to a human and the less complex it is, the more difficult is the assessment. The fuzziness of the boundary, between those animals that are judged to feel pain and those that are not does not invalidate the process of assessment. However, the extent to which an animal is given the benefit of the doubt clearly depends on the empathy a person feels for it as well as the type of ethical concerns that motivate the person.

40 **NAL Call No: HV4725.U5L4 1990**
Birds., 4th ed.
Nilsson, G.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 203-230; 1990.

Language: English

Descriptors: U.S.A.; Wild birds; Animal welfare; Law

41 **NAL Call No: QR360.J6**
The bovine papillomavirus constitutive enhancer is essential for viral transformation, DNA replica-

tion, and the maintenance of latency.
Vande Pol, S.B.; Howley, P.M.
Washington, D.C. : American Society for Microbiology.
Journal of virology v. 66 (4): p. 2346-2358; 1992 Apr. Includes references.

Language: English

Descriptors: Bovine papillomavirus; Genetic transformation; Dna replication; Transcription

Abstract: Bovine papillomavirus type 1 (BPV-1) has served as the prototype papillomavirus for the study of viral transcription, DNA replication, and latency. However, no cis essential transcription control regions which are necessary for both transformation and replication of BPV-1 or any other papillomavirus have yet been defined. We have found that BPV-1 mutants with deletions in the long control region were defective for transformation and replication, with the essential region in the 5' long control region corresponding to the previously defined BPV-1 constitutive enhancer (S.B. Vande Pol and P.M. Howley, J. Virol. 64:5420-5429, 1990). BPV-1 mutants deleted of the constitutive enhancer could be complemented in trans by the full-length virally encoded E2 transactivator and replication factor (E2TA) and in cis by the simian virus 40 enhancer. The constitutive enhancer induced the production of E2TA by activating all the major viral early promoters upstream of the E2 open reading frame. Complementation experiments using a temperature-sensitive E2TA mutant indicated that the constitutive enhancer was necessary for the maintenance of viral DNA replication within latently infected cells and implied that viral transcription under the regulation of the constitutive enhancer may be controlled during the cell cycle. The constitutive enhancer is a master regulatory control region for establishing and maintaining BPV-1 latency, and its characteristics reveal some analogies with cell type-specific enhancer elements recognized in the human papillomaviruses.

42 NAL Call No: QR1.I57
BvgAS-mediated signal transduction: analysis of phase-locked regulatory mutants of Bordetella bronchiseptica in a rabbit model.
Cotter, P.A.; Miller, J.F.
Washington, D.C., American Society for Microbiology.
Infection and immunity v. 62 (8): p. 3381-3390; 1994 Aug. Includes references.

Language: English

Descriptors: Bordetella bronchiseptica; Mutants; Phenotypes; Animal models; Bacterial proteins; Transduction; Strain differences; Virulence; Colonizing ability

Abstract: Members of the Bordetella genus alternate between two distinct phenotypic phases in response to changes in their environment. This switch, termed phenotypic modulation, is mediated by the BvgAS sensory transduction system. We developed an animal model based on the interaction of Bordetella bronchiseptica with one of its natural hosts, the rabbit. To investigate the importance of BvgAS signal transduction, we constructed constitutive (RB53) and Bvg- (RB54) phase-locked derivatives of a wild-type strain, RB50. RB50 and RB53, but not RB54, established respiratory infections in B. bronchiseptica-free rabbits with an intranasal 50% infective dose of less than 200 organisms, and the course of the infection closely resembled that observed with naturally infected rabbits. Bacteria were recovered from the nasal cavity, larynx, trachea, and lungs in similar numbers from RB50- and RB53-infected rabbits, yet no pathology was detected by histological examination of lung and tracheal sections. The antibody responses in rabbits inoculated with 50 or RB53 were quantitatively and qualitatively indistinguishable, high titers of antibodies were generated primarily against Bvg+ -phase-specific antigens. No response against flagella, a Bvg- phase factor, was detected. Assessment of bacteria associated with alveolar macrophages indicated that only a small percentage of bacteria, if any, appear to be residing within lung macrophages. We also tested the ability of these strains to survive in a nutrient poor environment, conditions which may be encountered within certain niches in the host or in an environmental reservoir. The Bvg- phase was advantageous for growth under these conditions. Our results indicate the Bvg+ phase is sufficient for establishment of respiratory tract infection in the rabbit and the normal BvgAS-mediated response to environmental signals is not required during initial colonization. The Bvg- phase may play a role at later stages of infection, including persistence, transmission, or survival in the environment.

43 NAL Call No: QL737.C22C36
Caging systems for dogs under the new standards of the animal welfare act.
Britz, W.E. Jr

Bethesda, MD : Scientists Center for Animal Welfare.
Canine research environment / edited by Joy A. Mench and Lee Krulisch. p. 48-52; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 22, 1989, Bethesda, Md. Question and answer session p. 51-52.

Language: English

Descriptors: U.S.A.; Dogs, cages, animal welfare, legislation

44 **NAL Call No: QL55.A1143**
Canadian Council on Animal Care: its role.
Rowsell, H.C.
Washington, D.C. : Institute of Laboratory Animal Resources, National Research Council.
I.L.A.R. news v. 32 (3): p. 39-40; 1990.

Language: English

Descriptors: Canada; Laboratory animals; Animal welfare; Animal husbandry; Organizations; Committees; Legislation; Publications

45 **NAL Call No: SF601.C24**
The Canadian Council on Animal Care, its guidelines and policy directives: the veterinarian's responsibility.
Rowsell, H.C.
Ottawa : Canadian Veterinary Medical Association.
Canadian journal of veterinary research; Revue canadienne de recherche veterinaire v. 55 (3): p. 205; 1991 Jul. Includes references.

Language: English

Descriptors: Laboratory animals, animal experiments, animal welfare, veterinary profession, animal models, pain

46 **NAL Call No: SF407.I58F79 1991**
Captive invertebrates a guide to their biology and husbandry., Original ed.
Frye, Fredric L.
Malabar, Fla. : Krieger Pub. Co.,.
xx, 135 p. : ill. (some col.) ; 29 cm. Includes bibliographical references and index.

Language: English

Descriptors: Invertebrates as laboratory animals; Invertebrates as pets; Captive wild animals

47 **NAL Call No: SF406.C35 1992**
The Care and use of amphibians, reptiles, and fish in research.
Schaeffer, Dorcas O.; Kleinow, Kevin M.; Krulisch, Lee
Scientists Center for Animal Welfare, Louisiana State University (Baton Rouge, La.), School of Veterinary Medicine
Bethesda, Md. (4805 St. Elmo Ave., Bethesda 20814) : Scientists Center for Animal Welfare,.
vii, 196 p. : ill. ; 28 cm. Proceedings from a SCAW/LSUSVM-sponsored conference ... held April 8-9, 1991 in New Orleans, Louisiana ... November 1992. Includes bibliographical references.

Language: English

Descriptors: Amphibians as laboratory animals; Reptiles as laboratory animals; Fish as laboratory animals

48 **NAL Call No: Videocassette no.971**
Carnivores basic needs, handling and care.
Morgan, Ronald L.
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc
Symposium: Animal Welfare Compliance for Study Directors 1990 : Orlando, Fla.
Closter, N.J. : Production Plus, Inc., [1990?].
1 videocassette (31 min., 37 sec.) : sd., col. ; 1/2 in. VHS. Videotape of a presentation at Symposium: Animal Welfare Compliance for Study Directors ; presented at the Eleventh Annual Meeting of the American College of Toxicology, Orlando, Fla., Oct. 1990.

Language: English

Descriptors: Laboratory animals, Animal welfare, Dogs as laboratory animals, Cats as laboratory animals, Ferrets as laboratory animals, Minks as laboratory animals

Abstract: The basic needs of dogs and cats including air, food, water, environmental controls and social interaction are presented. Available guidelines, regulations, resource information and training manuals are presented. Methods of disease prevention, identification, housing and exercise are discussed. The basic care and handling of farrets and mink is also covered.

49 **NAL Call No: HV4725.U5L4 1990**
Cats., 4th ed.
Leavitt, E.S.; Stevens, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of Amer-

ican laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 121-125; 1990.

Language: English

Descriptors: U.S.A.; Cats; Animal welfare; Law

50 NAL Call No: Z7994.L3A5
Comments on labelling related to the animal testing of cosmetic ingredients and products manufactured and/or marketed within the European Economic Community.
Balls, M.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 19 (3): p. 302-307; 1991 Jul. Includes references.

Language: English

Descriptors: Animal testing alternatives; Cosmetics; Labeling; European communities

Abstract: The use of terms such as 'cruelty-free' and 'not tested on animals' in relation to cosmetic ingredients and products is reviewed. It is concluded that, such is the confusion that has been engendered by their misuse, legitimate concerns for both human and animal welfare are compromised, and unfair trading practices are in operation. It is proposed that such misleading terminology should be prohibited within the EEC, and that more effort should be put into the development, validation and regulatory acceptance of non-animal toxicity tests and testing strategies.

51 NAL Call No: SF996.5.I54 1991a
Companion guide to Infectious diseases of mice and rats.
Institute of Laboratory Animal Resources (U.S.), Committee on Infectious Diseases of Mice and Rats
Washington, D.C. : National Academy Press.
x, 95 p. ; 23 cm. Includes bibliographical references and index.

Language: English

Descriptors: Mice, Rats, Laboratory animals, Mice as laboratory animals, Rats as laboratory animals

52 NAL Call No: QL55.A1L33
Compliance at the Institutional and programmatic level.
Wolff, A. \u National Institutes of Health Animal Center, Poolesville, MD; Smith, P.D.
New York, N.Y. : Nature Publishing Company.
Lab animal v. 23 (8): p. 28-29; 1994 Sep. Includes references.

Language: English

Descriptors: Laboratory animals; Animal welfare; Policy; Committees; Animal husbandry; Animal experiments; Control; Project control; Monitoring

53 NAL Call No: QL55.A1L3
Computerized ordering of experimental animals and test authorization.
Maerki, U.; Walther, A.; Rossbach, W.
London : Royal Society of Medicine Services.
Laboratory animals v. 24 (1): p. 25-31; 1990 Jan. Includes references.

Language: English

Descriptors: Switzerland; Laboratory animals, authority, acquisition, computer techniques, computer software, animal experiments

Abstract: The authorization procedure required by law in Switzerland and the internal set-up at Roche for acquiring experimental animals has made a computerized system for monitoring authorizations and animal deliveries essential. The INQUIRE software program, which can be run on the central computer, was used to set-up databases with information on all personnel who place orders and perform experiments (PERI), authorization matters (BEWI), orders (ORDR), deliveries (SPED), animal species (SPEC), animal strains (STRE), populations (POPU) and the management of various data (BARA). The authorizations database (BEWI) permits sequential searches on specific questions. The animals ordered in the ORDR database are constantly updated in BEWI, thus ensuring that the authorized animal quotas are not exceeded. Expiry of an authorization or an unregistered experimenter will come to light in the course of the plausibility study. Through ORDR the experimenter has a good overview of the animals that he has ordered or have been ordered for him, and he can select the most appropriate strain or population for his studies in STRE or POPU, which contain data on the genetic and physiological characteristics as well as the breeding and keeping of all sublines and stocks. Realization of the IFIS project has made it a simple matter to keep a check on the legal requirements pertaining to animal experimentation and to update the information and evaluate the entire stock of data at any

time.

54 NAL Call No: aHV4701.A952
Congress considers break-in bills.
Melcher, J.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 3 (3): p. 2, 8; 1992 Jul.

Language: English

Descriptors: U.S.A.; Animal experiments; Legislation

55 NAL Call No: KF26.C693 1989d
Consumer Products Safe Testing Act hearing before the Subcommittee on the Consumer of the Committee on Commerce, Science, and Transportation, United States Senate, One Hundred First Congress, first session on S. 891 ... November 8, 1989.
United States. Congress. Senate. Committee on Commerce, Science, and Transportation. Subcommittee on the Consumer
Washington [D.C.] : U.S. G.P.O. : For sale by the Supt. of Docs., Congressional Sales Office, U.S. G.P.O.; Y 4.C 73/7:S.hrg.101-460.
iii, 137 p. ; 24 cm. (S. hrg. ; 101-460). Distributed to some depository libraries in microfiche. Includes bibliographical references.

Language: English

Descriptors: Laboratory animals, Law and legislation, United States; Product safety, Law and legislation, United States; Consumer protection, Law and legislation, United States

56 NAL Call No: TX341.C6
Consumers union raises concerns over hormone; NIH calls it safe for humans.
Washington, D.C. : Community Nutrition Institute.
Nutrition week v. 20 (48): p. 1-2; 1990 Dec07.

Language: English

Descriptors: Cows, milk, meat, somatotropin, residues, food safety, animal health, research, food and nutrition controversies, industry, environmental impact, law

Abstract: NIH concluded that meat and milk from cows treated with synthetic growth hormones are safe. Concern over the risk is still present. Topics discussed in this article are human and animal health concerns, economic and social impact, and legal problems.

57 NAL Call No: SB950.A1V4
Control methods research priorities for animal damage control.
Packham, C.J.; Connolly, G.
Davis, Calif. : University of California.
Proceedings ... Vertebrate Pest Conference (15): p. 12-16; 1992 Aug. Meeting held March 3-5, 1992, Newport Beach, CA. Includes references.

Language: English

Descriptors: U.S.A.; Vertebrate pests; Pest control; Crop damage; Control methods; Research policy

58 NAL Call No: QL55.I5
Controlling hazardous substances in animal rooms and laboratories.
Waterman, L.
Sussex : The Institute.
Animal technology : journal of the Institute of Animal Technology v. 42 (1): p. 19-22; 1991 Apr. Includes references.

Language: English

Descriptors: Health hazards; Laboratories; Hygiene; Sanitation; Safety at work; Risk; Disinfectants; Drugs; Allergens; Legislation

Abstract: An overall approach to implementing the new Control of Substances Hazardous to Health (COSHH) Regulations 1988 is discussed. Examples discussed to illustrate the issues raised are the use of disinfectants, animal dosing and laboratory animal allergy. The strategy of assessment, control and monitoring is elucidated in the context of these examples.

59 NAL Call No: 275.29 ID13IDC
Dairy producers' and processors' attitudes toward dairy policy and bovine somatotropin.
Withers, R.V.; Lyle, C.M.
Moscow, Idaho : The Service.
Current information series - Cooperative Extension Service, University of Idaho (862): 6 p.; 1990 Apr.

Language: English

Descriptors: U.S.A.; Agricultural policy; Milk production; Bovidae; Somatotropin

60 NAL Call No: Z7994.L3A5
A decade of European legislation, can we legislate for humanity?

21

Hampson, J.E.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 18: p. 75-81; 1990 Nov. Includes references.

Language: English

Descriptors: Europe; Cabt; Animal experiments; Legislation

Abstract: The establishment throughout Europe, during the last decade, of legislation to control animal experiments, is described. The effectiveness of such laws to achieve their objectives is discussed. In particular, the effectiveness of costs against benefit as a part of project authorisation, is considered.

61 NAL Call No: 47.8 AM33P
Developing future-minded strategies for sustainable poultry production.
Stenholm, C.W.; Waggoner, D.B.
Champaign, Ill. : Poultry Science Association.
Poultry science v. 70 (2): p. 203-210; 1991 Feb. Includes references.

Language: English

Descriptors: U.S.A.; Poultry industry, sustainability, international trade, consumer preferences, environmental impact, research support

Abstract: Poultry is one of the world's major and fastest growing sources of meat, representing over 22% of all meat production in 1989. Because of their high nutrient content and relatively low caloric value, egg and poultry products are natural candidates to meet emerging consumer demands. The United States poultry industry must continue to meet the challenge of designing foods that meet consumers' definition of what is safe and what is healthy. Any agricultural production system should stand the test of scientific scrutiny, economic analysis, and social acceptance and impact. The agricultural science sector should develop best management practices that continue to provide profitability and sustainability for producers. The poultry industry in the United States and many other countries has progressed probably more than any other branch of livestock production in the trend toward intensive production systems. Voluntary codes of practice adhered to by producers of farm animals is an effective option that can be employed to help solve concerns about animal welfare. The poultry industry of the future will need to meet steadily consumer demand for wholesome meat, while addressing issues of health and safety waste management, and water and air pollution.

62 NAL Call No: QL876.B5
Differential steroidogenic response of subpopulations of porcine granulosa cells to insulin-like growth factor-1 (IGF-1) or IGF-1 analogs.
Howard, H.J.; Ford, J.J.
Madison : Society for the Study of Reproduction.
Biology of reproduction v. 51 (1): p. 108-115; 1994 Jul. Includes references.

Language: English

Descriptors: Pigs; Ovaries; Granulosa cells; Insulin-like growth factor; Estradiol; Follicular fluid; Hormone secretion

Abstract: Two experiments were conducted to examine responses of porcine granulosa cells to insulin-like growth factor-1 (IGF-1) or IGF-1 analogs (des [1-3] and Long R3) that have reduced affinity for IGF-binding proteins (IGFBP). Both experiments evaluated estradiol and IGFBP production by granulosa cells after separation of cells into subpopulations that maintain long-term estradiol production in vitro (tightly bound) and those that do not (weakly associated). Granulosa cells were obtained from medium-sized follicles (4-6 mm) at random stages of the estrous cycle in experiment 1 and from the 10 largest follicles per ovary at 0 or 48 h after weaning in experiment 2. Follicle diameter and follicular fluid estradiol concentrations increased with time after weaning ($p < 0.05$). Tightly bound cells produced more estradiol than weakly associated cells at 24-120 h of culture in experiment 1 and from 0 to 48 h in experiment 2 ($p < 0.05$). in tightly bound but not weakly associated cells, IGF-1 stimulated estradiol production. The IGF analogs were more potent stimulators than IGF-1 in experiment 1 ($p < 0.05$); and in experiment 2, this response was restricted to cells collected at 48 h after weaning. Conversely, tightly bound cells obtained at 0 h after weaning responded similarly to IGF-1 and des (1-3). During the final 48 h of culture, weakly associated cells produced greater quantities of 28-30-kDa IGFBP than did tightly bound cells in response to IGF-1 or analogs (both experiments; $p < .05$). Concentration of 40-44-kDa IGFBP was influenced minimally by IGF-1 or its analogs. We conclude that 1) tightly bound granulosa cells produce greater amounts of estradiol in vitro than weakly associated cells when sampled from medium-sized follicles; 2) tightly bound cells from follicles of sows at random stages of the cycle or at 48 h after weaning produce more estradiol in response to

IGF analogs than to IGF-1; and 3) tightly bound cells secrete less 20-30-kDa IGFBP in long-term culture than weakly associated cells. These results indicate that IGFBP modulate secretion of estradiol by porcine granulosa cells in vitro and implicate their potential for in vivo regulation.

63 NAL Call No: QL751.P4
Differing visions of the human-animal relationship: ambiguity in legal doctrine.
Lessley, B.E.
New York, N.Y. : Plenum Press.
Perspectives in ethology v. 9: p. 87-118; 1991. In the series analytic: Human understanding and animal awareness / edited by P.P.G. Bateson and P.H. Klopfer. Includes references.

Language: English

Descriptors: Animal welfare; Moral values; Law

Abstract: There is no coherent vision of the human-animal relationship that appears in the law. Rather, different laws reflect different priorities and different ideas about the importance of protection of animals when compared with the interests of humans. The different visions about the moral place of animals reflected in the laws correspond with different visions that members of human society have about the place of animals in the world. While there may be no coherent vision of the human/animal relationship that exists in the law, any single law can be seen as a compromise between the different visions that society has about animals. Historically, the law has treated animals as being fundamentally distinct from humans in a moral sense, and has placed relatively few controls on what humans can do to animals. Recent years have seen this situation change as more and more laws have been enacted to accord greater protection to animals. This change is essentially an adjustment by the law in the vision of the human-animal relationship that it adopts, moving from an extreme view that animals and humans are different to greater recognition of views that accord animals greater moral status. Yet the adjustment by the law has not been complete by any means, and the law has not gone nearly so far as to accord actual "rights" to animals. Instead, the law has increased its regulation of things that humans can do to animals and has created mechanisms by which humans can intervene in the legal system to protect animals. Whether the law will go the next step and allow animals to enter the legal system to protect their own interests appears doubtful, but remains to be seen.

64 NAL Call No: HV4725.U5L4 1990
Dogs., 4th ed.
Stevens, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 112-120; 1990.

Language: English

Descriptors: U.S.A.; Dogs; Animal welfare; Law

65 NAL Call No: HV4701.A35
Downers.
Bauston, G.
Englewood, Colo. : American Humane Association, Animal Protection Division.
Advocate v. 10 (2): p. 4-7; 1992.

Language: English

Descriptors: U.S.A.; Livestock; Animal welfare; Yards; Legislation

66 NAL Call No: 41.8 Am3
An eagle's eye view of wildlife legislation.
Dierauf, L.A. \u US House of Representatives on Merchant Marine and Fisheries, Washington, DC
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 200 (5): p. 623-628; 1992 Mar01. Corrects AGRICOLA accession number IND92017391 in which the publication year was incorrectly entered as 1991. Paper presented at the "AVMA animal welfare forum: the veterinarian's role in the welfare of wildlife," November 7, 1991, Chicago, Illinois. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Wildlife; Legislation; Wildlife conservation

67 NAL Call No: 41.8 AM3
An eagle's eye view of wildlife legislation.
Dierauf, L.A.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 200 (5): p. 623-628; 1992 Mar01. Paper presented at the "AVMA animal welfare forum: the veterinarian's role in the welfare of wildlife," November 7, 1991, Chicago, Illinois. Includes references.

Language: English

Descriptors: U.S.A.; Wildlife; Legislation; Wildlife conservation

68 NAL Call No: 44.8 J822
Economic, political, and global demands on the United States dairy industry.
Olson, K.E.
Champaign, Ill. : American Dairy Science Association.
Journal of dairy science v. 76 (10): p. 3133-3142; 1993 Oct. Includes references.

Language: English

Descriptors: Dairy cows; Milk production; International trade; Animal welfare; Food safety; Consumer attitudes; Dairy technology; Technology transfer; Dairy industry; Trends

Abstract: Since 1970, average milk production per cow in the US has increased by 2321 kg. During this time, the number of cows has decreased by 2,010,000, and the number of farms with milk cows is less than one-third the previous level. These trends are likely to continue. Although increased productivity has made US producers among the most efficient in the world, many challenges will emerge in the near future. Reduced government involvement that is partially due to budget constraints will contribute to greater price variations than in the past; international trade may offer new opportunities for increased sales if current trade negotiations are successful; and environmental concerns, animal welfare issues, and consumer preferences will continue to challenge the industry. Basic and applied research, technology transfer, and responsible legislation will be needed to assist the industry in meeting these challenges. Most of all, active producer participation in setting research priorities and the legislative agenda is necessary for the industry to progress.

69 NAL Call No: SF604.E3
Education and training in the care and use of laboratory animals a guide for developing institutional programs.
Institute of Laboratory Animal Resources (U.S.), Committee on Educational Programs in Laboratory Animal Science
Washington, D.C. : National Academy Press.
xi, 139 p. ; 28 cm. Includes bibliographical references.

Language: English

Descriptors: Laboratory animals, Animal welfare

70 NAL Call No: S596.7.D4
EEC regulatory requirements for the use and release of genetically modified organisms.
Bino, G. del
Dordrecht : Kluwer Academic Publishers.
Developments in plant and soil sciences v. 48: p. 653-658; 1991. In the series analytic: Nitrogen fixation / edited by M. Polsinelli, R. Materassi and M. Vincenzini. Proceedings of the Fifth International Symposium on "Nitrogen Fixation with Non-Legumes" held September 10-14, 1990, Florence, Italy.

Language: English

Descriptors: Nitrogen fixing bacteria; Genetic engineering; Transgenic plants; Environmental impact; Risk; Regulations; European communities

Abstract: The European Community, in its delicate role to promote research and industrial activities in the promising sector of biotechnology while ensuring the protection of public health and the environment, has recently adopted two Directives concerning the Regulation of Genetically Modified Organisms. Directive 90/219/EEC on the Contained Use of Genetically Modified Micro-organisms addresses all activities, from research and development to production, where genetically modified micro-organisms are used. The purpose of this Directive is: - to establish a case-by-case risk assessment for all operations; - to identify the cases where the contained use could entail a risk; to establish working practices and containment measures corresponding to the hazard the micro-organism presents; - to prevent, in case of hazardous micro-organisms, their accidental release and limit the consequences of such accidents where they occur. A flexible notification procedure is proposed, based both on the kind of micro-organism used and on the scale of the operation envisaged. Directive 90/220/EEC on the Deliberate Release to the Environment of Genetically Modified organisms covers all genetically modified organisms (micro-organisms, plants and animals) through all the stages of release to the environment from small scale to large scale experimental introductions, as well as release through product marketing - although some products may be exempted from the provisions of this Directive if they are covered by other Community legislation which includes a similar environmental risk assessment. The main elements of this Directive are: -An environmental risk assessment must always be carried out before

any release to the environment whether in an experiment or product. -No releases may be carried out without the consent of the competent authorities. -A national approval procedure is foreseen for experimental relases. -A Community approval procedure is foreseen for releases made by marketing a product. Once approved, a product can circulate freely throughout the Community.

71 NAL Call No: QL737.P9W44
The effect of the proposed regulations on administrative concerns.
Whitehair, L.A.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 71-73; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md. Includes references.

Language: English

Descriptors: U.S.A.; Animal welfare, legislation, impact, administration, laboratory animals

72 NAL Call No: HV4701.A35
The Endangered Species Act.
Daly, K.
Englewood, Colo. : American Humane Association, Animal Protection Division.
Advocate v. 11 (3/4): p. 12-13; 1994.

Language: English

Descriptors: U.S.A.; Cabt; Endangered species; Legislation; Animal welfare

73 NAL Call No: Videocassette no.1327
Environmental enrichment advancing animal care. (Advancing animal care.)
Countrywise Communication (Firm),Universities Federation for Animal Welfare
Potters Bar, Herts : Universities Federation for Animal Welfare,.
1 videocassette (37 min.) : sd., col. ; 1/2 in. + 1 folder. Folder includes 1 suggestions for use of video booklet, 1 set of reprints clipped together, Environmental enrichment report no. 1-4, and 3 leaflets about the UFAW.

Language: English

Descriptors: Zoo animals; Animal housing; Animal welfare

Abstract: Primarily aimed at all those responsible for the care of animals in captivity, the video explores the needs of zoo animals and gives practical suggestions for improving their lives. A straightforward guide to carrying out an enrichment project is provided.

74 NAL Call No: 475 EX7
Ethical principles and guidelines for scientific experiments on animals.
Basel : Birkhauser.
Experientia v. 48 (1): p. 1-3; 1992 Jan15.

Language: English

Descriptors: Switzerland; Animal welfare; Animal experiments; Guidelines; Professional ethics

75 NAL Call No: QL55.E84 1992
Ethics in research on animal behaviour readings from Animal behaviour. (Guidelines for the use of animals in research.)
Dawkins, Marian Stamp; Gosling, Morris
Association for the Study of Animal Behaviour, Animal Behavior Society
London, England : Academic Press for the Association for the Study of Animal Behaviour and the Animal Behavior Society, [1992?].
64 p. : ill. ; 25 cm. Includes "Guidelines for the use of animals in research," revised 1991 version. Includes bibliographical references.

Language: English

Descriptors: Animal experimentation; Laboratory animals

76 NAL Call No: 41.8 AM3
A European perspective on farm animal welfare.
Birbeck, A.L.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 198 (8): p. 1377-1380; 1991 Apr15. Paper presented at the "AVMA Animal Welfare Forum: Enhancing Wellness in Animals and People," Nov. 9, 1990. Chicago, Illinois. Includes references.

Language: English

Descriptors: Uk; Livestock, animal welfare, legislation, pain, advisory committees, education, training

77 NAL Call No: QL55.A1L33
European regulation of animal experiments.
O'Donoghue, P.N.
New York, N.Y. : Nature Publishing Company.
Lab animal v. 21 (8): p. 20-22, 24-25, 27; 1992 Sep.

Language: English

Descriptors: Europe; Animal experiments; Legislation

78 NAL Call No: aQL55.B36
Euthanasia.
Bennett, B.T.
Beltsville, Md. : USDA, National Agricultural Library.
Essentials for animal research : a primer for research personnel / by B.T. Bennett, M.J. Brown and J.C. Schofield. p. 89-100; 1990 Apr. Includes references.

Language: English

Descriptors: Laboratory animals; Domestic animals; Euthanasia; Animal welfare; Regulations

79 NAL Call No: SF914.G74 1990
Euthanasia guide (for animal shelters). (Euthanasia guide for animal shelters.), 3rd ed.
Grier, Ronald L.; Colvin, Tom L.; Kopecky, Lois N.
Ames, Iowa : Moss Creek Publications,.
iv, 47 p. : ill. ; 28 cm. Includes bibliographical references (p. 46).

Language: English

Descriptors: Euthanasia; Pets; Animal welfare; Pounds

80 NAL Call No: 1 AG84PRO
Every species counts: research on threatened, endangered, and sensitive plants and animals.
Washington, D.C. : The Department.
Program aid PA - U.S. Department of Agriculture (1481): 20 p.; 1992 Feb.

Language: English

Descriptors: U.S.A.; Endangered species; Research; Law; Wildlife management

81 NAL Call No: HV4725.U5L4 1990
The evolution of anti-cruelty laws in the United States., 4th ed.
Leavitt, E.S.; Halverson, D.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 1-47; 1990.

Language: English

Descriptors: U.S.A.; Animal welfare; Law; History

82 NAL Call No: KF27.A33277 1990e
Farm Animal and Research Facilities Protection Act of 1989 hearing before the Subcommittee on Department Operations, Research, and Foreign Agriculture and the Subcommittee on Forests, Family Farms, and Energy of the Committee on Agriculture, House of Representatives, One Hundred First Congress, second session, on H.R. 3270, July 17, 1990.
United States. Congress. House. Committee on Agriculture. Subcommittee on Department Operations, Research, and Foreign Agriculture
Washington [D.C.] : U.S. G.P.O. : For sale by the Supt. of Docs., Congressional Sales Office, U.S. G.P.O.; Y 4.Ag 8/1:101-62.
vii, 306 p. : ill. ; 24 cm. Distributed to some depository libraries in microfiche. Shipping list no.: 91-206-P. Serial no. 101-62. Includes bibliographical references.

Language: English

Descriptors: Domestic animals, Animal welfare, Animal experimentation

83 NAL Call No: HV4725.U5L4 1990
Fighting and baiting., 4th ed.
Stevens, C.; Halverson, D.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 151-156; 1990.

Language: English

Descriptors: U.S.A.; Dogs; Cocks; Bull fighting; Spectator events; Fighting; Animal welfare; Law

84 NAL Call No: HV4725.U5L4 1990
First federal law to prevent cruelty to animals., 4th ed.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 48-51; 1990.

Language: English

Descriptors: U.S.A.; Animal welfare; Law; History

85 NAL Call No: 49 J82
Food safety and inspection service update on food safety of animals derived from biotechnology experiments.
Basu, P.; Masters, B.; Patel, B.; Urban, O.
Champaign, Ill. : American Society of Animal Science.
Journal of animal science v. 71 (suppl. 3): p. 41-42; 1993. Paper presented at the symposium, "Genetically Modified Livestock: Progress, Prospects, and Issues", August 11, 1992, Pittsburgh, Pennsylvania. Includes references.

Language: English

Descriptors: Transgenic animals; Livestock; Food safety; Meat inspection; Slaughter; Regulations

Abstract: Recent progress in the field of biotechnology and the production of transgenic livestock has raised a question regarding the need for the regulation of these animals. There is also the need to regulate nontransgenic animals resulting from transgenic animal research. It is anticipated that several governmental agencies will be involved in regulatory issues pertaining to these animals. The United States Department of Agriculture (USDA), Food Safety and Inspection Service (FSIS) will ultimately be responsible for ensuring that transgenic animals intended for human consumption are wholesome, unadulterated, and properly labeled. The FSIS has implemented a program for the regulation of slaughtering nontransgenic animals resulting from transgenic animal experiments. However, the FSIS has not yet approved any transgenic livestock for slaughter. Scientists from the FSIS, in conjunction with other government agencies, are currently developing guidelines for the slaughter of transgenic animals.

86 NAL Call No: QL55.A1I43
Frequently asked questions about the Public Health Service Policy on care and use of laboratory animals.
Washington, Institute of Laboratory Animal Resources, National Research Council.
ILAR news v. 35 (3/4): p. 47-49; 1993. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Laboratory animals; Policy; Animal husbandry; Animal welfare; Committees; Regulations; Government organizations

87 NAL Call No: aHV4701.A952
Future development of USDA standards for farm animals under the authorities of the Animal Welfare Act.
Buntain, B.; Gallagher, S.
Beltsville, MD : National Agricultural Library, AWIC, 1990-.
Animal Welfare Information Center newsletter v. 5 (1): p. 14-15; 1994. In the special issue: Farm animals in research and teaching.

Language: English

Descriptors: U.S.A.; Cabt; Livestock; Animal welfare; Legislation; Usda; Regulations; Standards

88 NAL Call No: SF910.P34A55 1992
The future of control of pain in animals used in teaching and research.
Rowsell, H.C.
New York : Churchill Livingstone.
Animal pain / edited by Charles E. Short, Alan Van Poznak. p. 525-537; 1992. Includes references.

Language: English

Descriptors: Animal experiments; Laboratory animals; Pain; Research; Teaching; Education; Legislation; Animal welfare

89 NAL Call No: QL55.I5
Good laboratory practice, 1976-1992, an overview.
Dent, N.J.
Sussex : The Institute.
Animal technology : journal of the Institute of Animal Technology v. 43 (1): p. 7-9; 1992 Apr. Includes references.

Language: English

Descriptors: Laboratories; Regulations; European communities

Abstract: Whilst the concept and procedures of Good Laboratory Practice are certainly nothing new, certain changes have occurred in both responsibilities and attitudes to this "Good Practice" in the 16 years since its inception by the Food and Drug Administration (FDA) of the United States of America. It has certain implications for the animal technologist and benefits for the industry. It has not been seen as the bureaucratic straightjacket that was initially envisaged, and in actual fact is now regarded as one of several "Good Practices" and part of a companys overall Total Quality Management (TQM) programme. The benefits that

have clearly been seen following the implementation of Good Laboratory Practice (GLP) are: a greater professionalism, less animal use, better science, a much more early thought process resulting in clear documentation and the ability to either review or to repeat studies of a similar nature at a considerable time in the future.

90 NAL Call No: TD171.G77
Grant$ for environmental protection and animal welfare.
Foundation Center
New York, N.Y : The Foundation Center, 1990-.
v. ; 28 cm. COMSEARCH broad topics. Covers grants to nonprofit organizations in the U.S. and abroad, including environmental protection and legal agencies; public policy and citizens organizations; public facilities; and education institutions for programs including: natural resources conservation, pollution control, farmland preservation, botanical, horticultural and landscape services, environmental education, nature centers, and animal welfare and protection.

Language: English

Descriptors: Environmental protection; Animal welfare; Endowments

91 NAL Call No: A00123
The great Siver Spring monkey debate.
Carlson, P.
Washington, D.C. : The Washington Post.
The Washington post magazine. p. 14-19, 28-31; 1991 Feb24.

Language: English

Descriptors: Maryland; Monkeys; Animal welfare; Animal experiments; Law; Law enforcement; Laboratories

92 NAL Call No: SF406.G8 1990
Guia para el cuidado y uso de animales de laboratorio. [Guide for the care and use of laboratory animals]., Revisada en 1985.
Institute of Laboratory Animal Resources (U.S.), Committee on Care and Use of Laboratory Animals
Bethesda, Md.? : U.S. Dept. of Health and Human Services, Public Health Service, National Institutes of Health, [1990?]; HE 20.3008:An 5/985/Spanish. ix, 83 p. ; 23 cm. (NIH publication ; no. 90-23S). Translation of: Guide for the care and use of laboratory animals. Shipping list no.: 90-716-P. "Publicacion no. 86-23 de los Institutos Nacionales de Salud", P. [4] of cover. Includes bibliographical references (p. 59-73).

Language: Spanish; Spanish

Descriptors: Laboratory animals

93 NAL Call No: SF406.G85 1993
Guide to the care and use of experimental animals., 2nd ed.
Olfert, Ernest D.; Cross, Brenda M.; McWilliam, A. Ann
Canadian Council on Animal Care
Ottawa, Ont. : Canadian Council on Animal Care, c1993-.
v. ; 28 cm. Includes bibliographical references.

Language: English

Descriptors: Laboratory animals; Veterinary medicine

94 NAL Call No: 41.8 Am3A
Guidelines for animal surgery in research and teaching.
Brown, M.J.; Pearson, P.T.; Tomson, F.N.
Schaumburg, Ill. : American Veterinary Medical Association.
American journal of veterinary research v. 54 (9): p. 1544-1559; 1993 Sep. Includes references.

Language: English

Descriptors: Laboratory animals; Animal experiments; Surgery; Guidelines; Animal welfare; Teaching materials; Personnel; Equipment; Preoperative care; Anesthesia; Postoperative care

95 NAL Call No: 410.9 P94
Guidelines for developing and managing an environmental enrichment program for nonhuman primates.
Bloomsmith, M.A.; Brent, L.Y.; Schapiro, S.J.
Cordova, Tenn. : American Association for Laboratory Animal Science.
Laboratory animal science v. 41 (4): p. 372-377; 1991 Aug. Includes references.

Language: English

Descriptors: Primates; Environment; Enrichment; Guidelines; Animal welfare; Record keeping; Costs; Plan implementation and evaluation

Abstract: Before implementing an environmental enrichment program for nonhuman primates, several issues should be considered. The assignment of enrichment tasks can be made to

caretakers, a dedicated "enrichment technician," volunteers, students or individuals with training in behavioral science. Determining the enrichment techniques to be used must take into account personnel time available; the species, age, sex, and individual histories of the nonhuman primates; and experimental protocols for which animals are being maintained. Identifying the most beneficial way to use the available personnel time must be tailored for each institution. To meet federal regulations, records must be kept of the environmental enhancements available to each nonhuman primate. Good record-keeping will allow appropriate evaluation of the program. This evaluation should involve the animals' responses to the enrichment opportunity, cost and durability of enrichment items, human and nonhuman safety considerations, and personnel required. The well-being of captive nonhuman primates will be most improved if well-informed decisions are made in developing and managing environmental enrichment programs.

96 NAL Call No: HV4890.A5C36 1992
Guidelines for the care and use of animals in ACT schools.
ACT Department of Education and the Arts, Animal Ethics Committee
Canberra : ACT Dept. of Education and the Arts, Animal Ethics Committee, [1992?].
1 v. (unpaged) ; 30 cm. Caption title. May 1992.

Language: English

Descriptors: Animal welfare

97 NAL Call No: HV4763.N2G85 1991
Guidelines for the care and use of animals in production agriculture.
Nebraska Food Animal Care Coalition
Lincoln, Neb. : s.n., 1991?
1 v. (various pagings) ; 28 cm. The Nebraska Food Animal Care Coalition (NFACC) was organized in April 1990 to facilitate developing the guidelines for humane care of animals in production agriculture ... and provide a coordinated effort to develop humane guidelines that are compatible with Nebraska production practices. Includes bibliographical references.

Language: English

Descriptors: Animal welfare; Animal welfare; Animal experimentation; Domestic animals

98 NAL Call No: QL55.A1L3
Guidelines for the care of laboratory animals in transit.
London : Royal Society of Medicine Services.
Laboratory animals v. 27 (2): p. 93-107; 1993 Apr. Includes references.

Language: English

Descriptors: Laboratory animals; Transport of animals

99 NAL Call No: 410 B77
Guidelines for the treatment of animals in behavioural research and teaching.
London : Academic Press.
Animal behaviour v. 47 (pt.1): p. 245-250; 1994 Jan. Includes references.

Language: English

Descriptors: Animal welfare; Bioethics; Guidelines; Animal experiments

100 NAL Call No: HV4704.G8
Guidelines for the well-being of rodents in research from a conference held by the Scientists Center for Animal Welfare in Research Triangle Park, North Carolina on December 8, 1989, with additional material provided by the authors.
Guttman, Helene N.
Scientists Center for Animal Welfare (Washington, D.C.)
Bethesda, MD : Scientists Center for Animal Welfare.
vi, 105 p.: ill.; 28 cm. October 1990. Includes bibliographical references.

Language: English

Descriptors: Rodents as laboratory animals, Congresses; Animal welfare, Congresses

101 NAL Call No: SF406.W64 1994
Handbook of laboratory animal management and welfare.
Wolfensohn, Sarah; Lloyd, Maggie
Oxford ; New York : Oxford University Press,.
xi, 304 p. : ill. ; 24 cm. Includes bibliographical references (p. [281]-293) and index.

Language: English

Descriptors: Laboratory animals; Animal welfare; Animal experimentation

102 NAL Call No: HV4733.H36 1993
Handbook of live animal transport (with quarterly supplements)., 1993 ed.

Anderson, Dale L.
Silesia Companies, Inc
Fort Washington, Md. : Silesia Companies, Inc., 1993-.
1 v. (loose-leaf) : ill. ; 30 cm. Animal handling and safety, veterinary proceedures [sic], animal health regulations, transporting animals by land, sea & air, exporting animals.

Language: English

Descriptors: Animals; Animal welfare

103 **NAL Call No: QL737.P9W44**
A historical view.
Keeling, M.E.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 13-14; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md.

Language: English

Descriptors: U.S.A.; Animal welfare, laboratory animals, history, legislation

104 **NAL Call No: HV4725.U5L4 1990**
Horses., 4th ed.
Twyne, P.; Stanley, V.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 126-150; 1990.

Language: English

Descriptors: U.S.A.; Horses; Animal welfare; Law

105 **NAL Call No: QL737.P9W44**
How the proposed regulations might impact a research facility.
Butler, T.M.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 55-59. ill; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md.

Language: English

Descriptors: Texas; Animal welfare, laboratory animals, legislation, impact

106 **NAL Call No: HV4725.U5L4 1990**
Humane education in the public schools., 4th ed.
Leavitt, E.S.; Beary, B.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 244-253; 1990.

Language: English

Descriptors: U.S.A.; Public schools; Animal welfare; Law; Legislation; Education; Animal experiments

107 **NAL Call No: 10 OU8**
Humane slaughter.
Gregory, N.G.
Oxon : C.A.B. International.
Outlook on agriculture v. 20 (2): p. 95-101; 1991 Jun. Includes references.

Language: English

Descriptors: Europe; Livestock, stunning, symptoms, safety at work, animal welfare, consciousness, regulations

108 **NAL Call No: HV4725.U5L4 1990**
Humane slaughter laws., 4th ed.
Leavitt, E.S.; Halverson, D.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 52-65; 1990.

Language: English

Descriptors: U.S.A.; Livestock; Slaughter; Animal welfare; Law; History

109 **NAL Call No: A00033**
Humane Society bashes USDA.
San Francisco, Calif. : Deborah J. Mysiewicz.
BioEngineering news v. 11 (38): p. 2; 1990 Sep15.

Language: English

Descriptors: U.S.A.; Animal welfare; Animal experiments; Usda; Regulations

110 **NAL Call No: QL55.A1L33**

IACUC handling of mistreatment or noncompliance.
Silverman, J.
New York, N.Y. : Nature Publishing Company.
Lab animal v. 23 (8): p. 30-32; 1994 Sep.

Language: English

Descriptors: Laboratory animals; Animal welfare; Committees; Animal husbandry; Policy; Monitoring

111 NAL Call No: HV4764.I46 1992
Implementation strategies for research animal well-being institutional compliance with regulations : proceedings of a conference held in Baltimore, Md. on December 5-6, 1991 about compliance with USDA regulations for the well-being of canines and nonhuman primates in research.
Krulisch, Lee
Scientists Center for Animal Welfare (Bethesda, Md.),Wards, Inc
Bethesda, MD : Scientists Center for Animal Welfare ; Washington, DC : WARDS,.
v, 178 p. : ill. ; 23 cm. Includes bibliographical refcrences.

Language: English

Descriptors: Animal welfare

112 NAL Call No: QL55.A1L33
Implications of new medical waste regulations on laboratory animal research.
Party, E.; Wilkerson, A.
New York, N.Y. : Nature Publishing Company.
Lab animal v. 20 (8): p. 28-29, 32, 34, 36; 1991 Sep. Includes references.

Language: English

Descriptors: Laboratory animals; Waste disposal; Regulations

113 NAL Call No: SF995.W4
Implications of pending animal welfare legislations.
Melvill, L.D.
Davis, Calif. : University of California.
Proceedings - Western Poultry Disease Conference (39th): p. 110; 1990. Meeting held March 4-6, 1990, Sacramento, California.

Language: English

Descriptors: California; Animal welfare; Legislation

114 NAL Call No: Z7994.L3A5
Improved housing of mice, rats and guinea-pigs: a contribution to the refinement of animal experiments.
Scharmann, W.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 19 (1): p. 108-114; 1991 Feb. Paper presented at the fifth meeting of the Italian Group for the Application of Tissue Cultures in Toxiciology, May 31-June 1, 1990, Milan, Italy. Includes references.

Language: English

Descriptors: Laboratory animals; Cages; Animal welfare

Abstract: The keeping of experimental animals requires housing systems appropriate to the needs and behaviour of each species, as demanded by various supranational and national guidelines. It is questionable whether conventional housing systems for rodents such as mice, rats and guinea-pigs meet this demand. It is suggested that the housing of laboratory rodents should be improved by the use of larger and more appropriate cage types, as well as by reducing the monotony of conventional housing systems.

115 NAL Call No: Z7994.L3A5
In vitro toxicology: a challenge for the 21st century.
Roberfroid, M.B.; Goethals, F.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 18: p. 19-22; 1990 Nov. Includes references.

Language: English

Descriptors: Animal testing alternatives; In vitro; Toxicology

Abstract: Animal experimentation is an emotional topic, which arouses passionate feelings both in animal protection groups and in the scientific community. For many years, antivivisectionists have fought for the abolition of all animal experimentation, whereas other groups campaign for suppression reduction of the level of pain animals suffer because of experimentation. Despite all these efforts, the number of animals used in scientific research does not seem to have decreased significantly during the last few years. At best, this number remains constant or shows minor reductions in some countries, whereas in others it is still increasing, In addition to this situation, which cer-

tainly does not satisfy the antivivisectionists, the validity of the use of animal models in biomedical research is increasingly being questioned. On the other hand, a number of developments and projects exist which attest to the growing interest of scientists in in vitro models which use few, or even no, animals. Such a change in attitude is particularly evident in practice and research in toxicology, which uses a large number of animals. Taking into account the special status of toxicology among the biomedical sciences, since its practice is required and defined by laws and directives, a semantic problem exists over which adjective should be applied to describe such new methods. For some, it must be alternative - for consistancy to underline the possibility of replacing classical in vivo tests with new in vitro tests, the validity of which is demonstrated by reference to these in vivo tests. For others, it has to he complementary - to characterise the new protocols and the new experimental models which are of interest, because they contribute to the improvement of toxicology by strengthening its scientific nature. For a third group, it must be adjunct - to emphasise the relatively minor role of non-animal tests in relation to the conventional animal tests. It is the second concept that is favoured in this article. The experimental models to which it applies will, according to the Three Rs of Russell & Burch (1), lead either to the replacement of animal models, or to a reduction in the number of animals used or to refinement of test procedures in order to minimise the suffering and stress caused to animals.

116 NAL Call No: HV4764.I58 1992
Institutional Animal Care and Use Committee guidebook.
National Institutes of Health (U.S.)
Bethesda, Md.? : U.S. Dept. of Health and Human Services, Public Health Service, National Institutes of Health ; [Washington, D.C. : Supt. of Docs, U.S. G.P.O., distributor, 1992-]; HE 20.3008:An 5/5.
1 v. (loose-leaf) ; 28 cm. (NIH publication ; no. 92-3415). Includes bibliographical references.

Language: English

Descriptors: Laboratory animals; Animal experimentation; Animal welfare

117 NAL Call No: S441.S855
Integration of aquaculture into an irrigated farm to improve efficiency of water and nutrient use.
Olsen, M.W.
1988-.

Sustainable Agriculture Research and Education (SARE) or Agriculture in Concert with the Environment (ACE) research projects. 21 p.; 1991. SARE Project Number: UC/USDA AW91-2. Record inculdes 5 1/2 floppy disk and papers on the research.

Language: English

Descriptors: New Mexico; Cabt; Arizona; Cabt; Irrigation water; Effluents; Fish culture; Crop production; Ictalurus punctatus; Tilapia; Irrigated conditions; Gossypium; Lawns and turf; Ornamental plants; Crop yield; Water use efficiency; Water management; Low input agriculture

118 NAL Call No: HV4725.U5L4 1990
International animal protection., 4th ed.
Stevens, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 238-243; 1990.

Language: English

Descriptors: Wild animals; Wild birds; Animal welfare; Law; International transport

119 NAL Call No: aQK981.4.P76
International resources on the release of organisms into the environment.
Segal, M.
Beltsville, Md. : Plant Genome Data and Information Center, USDA-NAL.
Probe : newsletter for the USDA Plant Genome Research Program v. 1 (3/4): p. 15-17; 1991.

Language: English

Descriptors: Microorganisms; Plants; Animals; Genetic engineering; Introduced species; Environmental impact; Recombinant DNA; International cooperation; Research policy; Diffusion of research; Diffusion of information

120 NAL Call No: QL55.A1143
IRAC recommendation on LD50 testing.
Washington, Institute of Laboratory Animal Resources, National Research Council.
ILAR news v. 35 (3/4): p. 56-58; 1993. Includes references.

Language: English

Descriptors: Laboratory animals; Lethal dose; Test-

ing; Committees; Guidelines; Policy; International organizations

121 NAL Call No: A00110
Kinder life sought for research animals: suit urges new rules for dogs, primates.
San Francisco, Calif. : The Chronical Publishing Co.
San Francisco chronicle. p. A5; 1991 Jun10.

Language: English

Descriptors: U.S.A.; Animal experiments, animal welfare, usda, regulations

122 NAL Call No: QL55.I5
The Laboratory Animal Breeders Association Accreditation Scheme (L.A.B.A.A.S.) its history, current organisation and future trends.
Smith, M.W.
Sussex : The Institute.
Animal technology : journal of the Institute of Animal Technology v. 43 (1): p. 19-27; 1992 Apr.

Language: English

Descriptors: Uk; Laboratory animals; Breeders' associations

Abstract: In 1982 the Medical Research Council decided to close the Laboratory Animal Centre (LAC) originally based at the MRC laboratories in Carshalton. This effectively brought to an end the originally LAC sponsored scheme for the voluntary accreditation of laboratory animal breeders. With the co-operation of the MRC a new scheme, which most Home Office registered breeders have now joined (LABAAS) was organised through a scientific working party under the auspices of the Laboratory Animal Breeders Association. Since 1982 additions and alterations have been made to the format of the manual, which sets out the working structure of the scheme. This paper outlines the current structure of LABAAS and indicates how constructive advice and criticism is helping to shape the future direction of the scheme.

123 NAL Call No: QL55.A1L33
Laboratory animal science in Italy: legislation, education, and training programs.
Guaitani, A.
New York, N.Y. : Nature Publishing Company.
Lab animal v. 21 (8): p. 39-40, 42, 44; 1992 Sep. Includes references.

Language: English

Descriptors: Italy; Animal experiments; Legislation; Educational programs

124 NAL Call No: HV4725.U5L4 1990
Laboratory animal welfare., 4th ed.
Stevens, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 66-105; 1990.

Language: English

Descriptors: U.S.A.; Laboratory animals; Animal welfare; Legislation; Law; History

125 NAL Call No: SF406.N92 1994
Laboratory animal welfare a guide to reference tools, legal materials, organizations, federal agencies.
Nyberg, Cheryl; Porta, Maria A.; Boast, Carol
Twin Falls, ID : BN Books,.
xii, 389 p. ; 29 cm. "... partially supported by the U.S. Department of Agriculture, National Agricultural Library, Agreement No. 58-32U4-7-031, and by the University of Illinois at Urbana-Champaign", T.p. verso. Includes index.

Language: English

Descriptors: Laboratory animals; Animal welfare; Animal experimentation

126 NAL Call No: 472 N42
The laboratory rat's guide to Europe.
MacKenzie, D.
London, Eng. : New Science Publications.
New scientist v. 134 (1821): p. 29-31; 1992 May16.

Language: English

Descriptors: Europe; Animal experiments; Regulations; Animal welfare; European communities; Animal testing alternatives

127 NAL Call No: Q1.S37
Labs scurry to meet animal care mandate.
Clemmitt, M.
Philadelphia, Pa. : Institute for Scientific Information :.
The scientist v. 5 (15): p. 1, 6-7; 1991 Jul22.

Language: English

Descriptors: U.S.A.; Animal welfare, animal experiments, usda, regulations

128 NAL Call No: QL55.A1L3
LASA recommendations on education and training for licence holders under the UK Animals (Scientific Procedures) Act 1986, FELASA Categories B and C. Report of a committee accepted by LASA Council June 1992.
O'Donoghue, P.N.; Bunyan, J.; Buckwell, A.C.; Gregory, J.A.; Griffiths, P.H.M.; Howard, B.R.; Jones, H.; Millican, K.G.; Wilson, M.S.; Brouwer, G.
London : Royal Society of Medicine Services.
Laboratory animals v. 27 (3): p. 189-205; 1993 Jul.

Language: English

Descriptors: Uk; Laboratory animals; Animal welfare; Guidelines

129 NAL Call No: ArUKF2940.2.V3W55 1990
Law and ethics of the veterinary profession.
Wilson, James F.; Rollin, Bernard E.; Garbe, Jo Anne L.
Yardley, PA : Priority Press,.
xxiv, 532 p. : ill., forms ; 27 cm. Includes bibliographical references and index.

Language: English

Descriptors: Veterinarians; Animal welfare

130 NAL Call No: HV4725.U5L4 1990
The law and the non-human primate trade., 4th ed.
McGreal, S.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 231-237; 1990.

Language: English

Descriptors: U.S.A.; South America; Central America; Caribbean; Africa; Asia; Madagascar; Primates; International trade; Law; Animal welfare

131 NAL Call No: QL55.A1L33
Legislation and animal experimentation in The Netherlands and the U.S.: is there a difference in aproach?
Ritskes-Hoitinga, M.; Bosland, M.C.; Greeve, P. de; Zutphen, B.F.M van
New York, N.Y. : Nature Publishing Company.
Lab animal v. 21 (8): p. 28, 32-37; 1992 Sep. Includes references.

Language: English

Descriptors: U.S.A.; Netherlands; Animal experiments; Legislation

132 NAL Call No: 47.8 AM33P
Legislative view of research.
Siemens, A.
Champaign, Ill. : Poultry Science Association.
Poultry science v. 71 (8): p. 1325-1327; 1992 Aug. Includes references.

Language: English

Descriptors: Agricultural policy; Agricultural research; Federal government; Poultry

Abstract: Congress has its own perception of research; whether it equates to reality is up to the research community. Many in Congress perceive that the research community is free-floating and is not focused on addressing the problems that face the United States today. Recent government reports have reviewed the purposes, accountability, and challenges facing the traditional research and extension system as it enters the 1990s. These reports send a strong message that the status quo will not work sufficiently in the 1990s. How does this affect agricultural research dollars? Congress, in response to its own perceptions, has strived to establish priorities by allocating resources to key projects. Whether this is in the best interest of the nation is debatable. The agricultural research community needs to establish priorities and to communicate them effectively ; otherwise someone less informed in the Congress will do it.

133 NAL Call No: 41.8 AM3
Liability protection for laboratory animal and public veterinarians.
Hannah, H.W.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 197 (11): p. 1456-1458; 1990 Dec01.

Language: English

Descriptors: Veterinarians; Legal liability; Laboratory animals; Public authorities; Defense; Veterinary jurisprudence

134 NAL Call No: 1 AG84PRO
Licensing and registration under the animal wel-

fare act: guidelines for dealers, exhibitors, transporters, and researchers.
Washington, D.C. : The Department.
Program aid PA - U.S. Department of Agriculture v.): 20 p.; 1992 Apr.

Language: English

Descriptors: U.S.A.; Animal welfare; Law; Licenses; Usda; Regulation; Laboratory animals; Zoo animals

135 **NAL Call No: SF55.A357R47 1992**
Livestock and resource management policy issues and priorities for research : proceedings of the Research Planning Workshop held at ILCA, Addis Ababa, Ethiopia, 24-27 March 1992.
Ehui, S.; Lipner, M. E.
International Livestock Centre for Africa
Research Planning Workshop 1992 : International Livestock Centre for Africa.
Addis Ababa, Ethiopia : International Livestock Centre for Africa,.
vi, 161 p. ; 30 cm. January 1993. Includes bibliographical references.

Language: English

Descriptors: Livestock; Range management

136 **NAL Call No: TD811.L59 1992**
Livestock and the environment rethinking environmental policy, institutions & compliance strategies ; interim report to the Joint Interim Committee on the Environment, 72nd Texas Legislature. (Interim report to the Joint Interim Committee on the Environment, 72nd Texas Legislature.)
Jones, Ron
Texas, Legislature, Joint Interim Committee on the Environment
Stephenville, Tex. : Texas Institute for Applied Environmental Research, Tarleton State University,.
119 p : ill., maps ; 28 cm. September 1992. Bibliography: pp. 110-118.

Language: English

Descriptors: Animal waste

137 **NAL Call No: 472 N42**
Many monkey experiments 'not justified'.
Vines, G.
London, Eng. : New Science Publications.
New scientist v. 132 (1796): p. 15; 1991 Nov23.

Language: English

Descriptors: England; Animal experiments, animal welfare, legislation

138 **NAL Call No: HV4701.A35**
The Marine Mammal Protection Act under attack.
Douglass, A.
Englewood, Colo. : American Humane Association, Animal Protection Division.
Advocate v. 11 (3/4): p. 20-21; 1994. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Marine mammals; Animal welfare; Legislation

139 **NAL Call No: aHV4701.A952**
Marine mammal welfare: the role of USDA, APHIS.
Kohn, B.
Beltsville, MD : National Agricultural Library, AWIC, 1990-.
Animal Welfare Information Center newsletter v. 5 (2): p. 6-8; 1994.

Language: English

Descriptors: U.S.A.; Cabt; Marine mammals; Animal welfare; Usda; Regulations

140 **NAL Call No: HV4725.U5L4 1990**
Marine mammals., 4th ed.
Stevens, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.].
p. 190-202; 1990.

Language: English

Descriptors: U.S.A.; Marine mammals; Animal welfare; Law

141 **NAL Call No: 44.8 J622**
Modulation of expression of fos and Ha-ras oncogenes and ornithine decarboxylase activity in mammary gland and liver of young female rats by the absence of dietary lipotropes.
Park, C.S.; Choi, C.B.; Baik, M.G.; Keller, W.L.
Champaign, Ill. : American Dairy Science Association.
Journal of dairy science v. 77 (8): p. 2214-2220; 1994 Aug. Includes references.

Language: English

Descriptors: Diet; Lipotropic factors; Deficiency; Methionine; Folic acid; Choline; Rats; Cyanocobalamin; Liver; Weight; Mammary glands; Oncogenes; Gene expression; Amino acids; Body weight; Feed intake; Messenger RNA; Ornithine decarboxylase; Enzyme activity

Abstract: There is evidence that diets deficient in lipotropes [methionine, choline, pteroylmonoglutamic acid (folic acid), and cyanocobalamin (vitamin B12)] induce and enhance hepatocarcinogenesis. This research examined the extent to which dietary lipotropes modify cellular oncogene expression and ornithine decarboxylase activity in mammary gland and liver of rats. Eighteen female Sprague-Dawley rats (8 wk old) were fed 3 wk on one of three diets: 1) a control synthetic diet; 2) a methyl-deficient diet lacking choline, methionine, pteroylmonoglutamic acid, and cyanocobalamin; or 3) a diet supplemented with twice the amount of each lipotrope as in the control synthetic diet. The group fed the methyl-deficient diet gained less body weight than groups fed the control or methyl-supplemented diet. The group fed the methyl-deficient diet had approximately 5- and 11-fold greater fos transcription in mammary gland and liver, respectively, than did the control group. The expression of the Ha-ras gene in mammary gland and liver of the group fed the methyl-deficient diet was increased by 4- and 6-fold compared with that of the control. Ornithine decarboxylase activity, considered to be a developmental marker, was higher in liver and mammary gland of the group fed the methyl-deficient diet than in either the group fed control synthetic diet or the group fed the methyl-supplemented diet. The methyl-deficient diet may have caused activation of the transcription factor fos and thus the activation of the transcription regulatory complex, AP-1. In turn, AP-1 may regulate genes, such as ornithine decarboxylase, which are responsible for cell proliferation and differentiation.

142 **NAL Call No: QH442.G4522**
More legislation on animal use in laboratories expected.
Rood, M.
Washington, D.C. : King Pub. Group.
Biotech daily v. 1 (67): p. 1, 4; 1992 Nov17.

Language: English

Descriptors: U.S.A.; Animal welfare; Animal experiments; Legislation

143 **NAL Call No: SB950.A1V4**
The most dangerous pest: "Homo environmentalus".
Bidinotto, R.J.
Davis, Calif. : University of California.
Proceedings ... Vertebrate Pest Conference (15): p. 2-8; 1992 Aug. Meeting held March 3-5, 1992, Newport Beach, CA. Includes references.

Language: English

Descriptors: U.S.A.; People; Animal welfare; Environmental policy; Politics; Ethics

144 **NAL Call No: TX553.A3F65**
Mycotoxins in review.
Pohland, A.E.
London : Taylor & Francis.
Food additives and contaminants v. 10 (1): p. 17-28; 1993 Jan. Paper presented at the symposium and workshop on "Food Contamination, Mycotoxins and Phycotoxins," November 4-15, 1990, Cairo, Egypt. Includes references.

Language: English

Descriptors: Food contamination; Mycotoxins

Abstract: The putative involvement of mycotoxins in human diseases, including cancer, is reviewed with reference to ergotism, citreoviridin toxicosis, alimentary toxic aleukia, stachybotryotoxicosis, Balkan endemic nephropathy and aflatoxicoses. Analytical and sampling problems in determining the occurrence of and exposure to mycotoxins are discussed against the background that over 300 mycotoxins have been identified, produced by some 350 fungal species, and that the potency of some of them demands the quantitation of extremely small quantities of analyte. Mycotoxins associated with food and originating from Alternaria, Aspergillus, Fusaria, Penicillia and Claviceps spp. are reviewed with reference to the toxicological, regulatory and economic issues arising. It is concluded that continued efforts are needed to: identify and quantify human/animal exposure; estimate health risks and make defensible risk-benefit judgements; develop sampling plans based on experimental observation; arrive at agreed regulatory levels based on legitimate sampling plans, analytical capabilities and economic considerations; develop procedures for disposal of contaminated lots; and develop plant varieties resistant to fungal invasion.

145 **NAL Call No: 472 N42**

The myth of the barn egg.
Harrison, R.
London, Eng. : New Science Publications.
New scientist v. 132 (1797): p. 40-43; 1991 Nov30.

Language: English

Descriptors: Europe; Animal welfare; Hens; Stocking density; Regulations; European communities; Eggs

146 NAL Call No: QH1.A43
NABT's policy on the responsible use of animals in biology classrooms: a clarification.
Reston, Va. : National Association of Biology Teachers.
The American biology teacher v. 53 (2): p. 71; 1991 Feb. Includes references.

Language: English

Descriptors: Animal experiments, science education, professional associations, policy

147 NAL Call No: TD171.O44 1992
National guide to funding for the environment and animal welfare.
Olson, Stan; Kovacs, Ruth; Haile, Suzanne
New York : Foundation Center,.
xxxi, 332 p. ; 28 cm. Includes indexes.

Language: English

Descriptors: Environmental protection; Animal welfare; Endowments

148 NAL Call No: SF407.P7T49 1991
The necessity for interpretation of standards designed to promote the psychological well-being of nonhuman primates., 1st ed.;.
Hunt, R.D.
Washington, DC : American Psychological Association ;.
Through the looking glass: issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 20-25; 1991. Includes references.

Language: English

Descriptors: U.S.A.; Primates; Animal welfare; Standards; Interpretation; Regulations; History

149 NAL Call No: RA1199.4.I5158 1993
The need for a scientific panel.
Wilcox, N.
Baltimore, MD : CAAT.
The International status of validation of in vitro toxicity tests : a report of the CAAT/TCA workshop of June 16-20, 1991. p. 34-36; 1993.

Language: English

Descriptors: U.S.A.; Cabt; Animal testing alternatives; Validity; Government organizations; Evaluation

150 NAL Call No: A00069
New research methods seen unlikely to eliminate animal testing.
Marcus, E.
Washington, D.C. : The Washington Post Co.
The Washington post. p. A3; 1990 Aug28.

Language: English

Descriptors: Animal experiments, animal welfare, regulations

151 NAL Call No: QL737.P9W44
Nonhuman primate well-being: an issue of science or politics?
Wolfle, T.L.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 64-67; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md. Question and answer session p. 68.

Language: English

Descriptors: U.S.A.; Animal welfare, laboratory animals, regulations, politics

152 NAL Call No: Slide no.437
Nonhuman primates biosafety. (Nonhuman primates : biosafety.)
Broderson, J. Roger
University of Washington, Health Sciences Center for Educational Resources, American College of Laboratory Animal Medicine, National Agricultural Library (U.S.)
Seattle, WA : Produced and distributed by the Health Sciences Center for Educational Resources, University of Washington,.
60 slides : col. + 1 sound cassette (25 min.) + 1 guide. (Laboratory animal medicine and science. Series 2 ; V-9018). Developed for the American College of Laboratory Animal Medicine. Sound accompaniment compatible for manual and automatic operation. Accompanying guide includes

script. Portions of this project have been funded by grant from the National Agricultural Library.

Language: English

Descriptors: Primates as laboratory animals; Animal experimentation; Primates

Abstract: Covers four major classes of health hazards within a nonhuman primate facility; practices, equipment and facility design to help prevent disease or injury from these hazards.

153 NAL Call No: Slide no.435
Nonhuman primates environmental enrichment. (Nonhuman primates : environmental enrichment.)
Bayne, Kathryn
University of Washington, Health Sciences Center for Educational Resources, American College of Laboratory Animal Medicine, National Agricultural Library (U.S.)
Seattle, WA : Produced and distributed by the Health Sciences Center for Educational Resources, University of Washington,.
61 slides : col. + 1 sound cassette (25 min.) + 1 guide. (Laboratory animal medicine and science. Series 2 ; V-9019). Developed for the American College of Laboratory Animal Medicine. Sound accompaniment compatible for manual and automatic operation. Accompanying guide includes script. Portions of this project has been funded by a grant from the National Agricultural Library.

Language: English

Descriptors: Primates as laboratory animals; Primates; Laboratory animals

Abstract: Covers promotion of psychological well-being by social, non-social, contact, and non-contact approaches.

154 NAL Call No: aHV4701.A952
Observations from the field: a marine mammal inspector's view.
Cox, K.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 3 (2): p. 2-3; 1992 Apr.

Language: English

Descriptors: Marine mammals; Animal welfare; Inspection

155 NAL Call No: 500 N484
Occupational health guidelines for control of Q fever in sheep research.
Harrison, R.J.; Vugia, D.J.; Ascher, M.S.
New York, N.Y. : The Academy.
Annals of the New York Academy of Sciences v. 590: p. 283-290; 1990. In the series analytic: Rickettsiology: current issues and perspectives / edited by K.B. Hechemy, D. Paretsky, D.H. Walker, and L.P. Mallavia. Includes references.

Language: English

Descriptors: California; Sheep; Coxiella burnetii; Disease vectors; Health protection; Q fever; Research workers; Zoonoses

156 NAL Call No: 421 J825
Ooplasmic pH and electrical properties of developing locust (Locusta migratoria) eggs.
Hawkins, E.; O'Donnell, M.J.
Exeter : Pergamon Press.
Journal of insect physiology v. 38 (7): p. 493-502; 1992 Jul. Includes references.

Language: English

Descriptors: Locusta migratoria; Embryonic development; Laboratory rearing; Membrane potential; Oviposition; Ova; Ph

Abstract: Ooplasmic pH and the electrical potential difference across the egg coverings (PD(egg)) were measured in developing locust (Locusta migratoria) eggs with double-barrelled pH microelectrodes. Successful microelectrode impalements were obtained up to the ninth day of development, the day before hatching at 37 degrees C. PD(egg) for eggs bathed in control saline changed substantially during development, from a minimum of -23 mV in day-1 eggs to a maximum of -78 mV in day-3 eggs, whereas ooplasmic pH remained near 7.2-7.3 before fertilization and up to day 5. Dechorionation reduced PD(egg) in day-3 eggs by only 5 mV. Input resistance decreased from 1.2 M omega in chorionated eggs before fertilization to less than 0.2 M omega in day-1 to day-5 eggs. PD(egg) changed by up to 19 mV for a 10-fold change in bathing saline Cl- concentration, but less than 5 mV for a 10-fold change in the concentration of Na+ or K+. Experiments with internally perfused eggs indicated that the Cl, dependent component of PD(egg) is developed primarily across the serosal cuticle, and that up to 28% of PD(egg) consists of a second potential developed across the serosal epithelium. Contribution of a metabolic pump to the latter component

was suggested by the effects of chilling or anoxia on PD(egg) in intact eggs. Acidification of egg ooplasm by 0.2 pH units in hypercapnic bathing saline (7% carbon dioxide) was associated with a 66% hyperpolarization of PD(egg). The results suggest that ooplasmic pH increases as ambient pCO2 declines during ovipoisition, and that an electrogenic proton pump contributes to both PD(egg) and ooplasmic pH regulation.

157 NAL Call No: KD3420.O63 1991
Operations on farm animals a guide to legislation.
Great Britain, Ministry of Agriculture, Fisheries and Food
London : Ministry of Agriculture, Fisheries and Food,.
10 p. ; 21 cm. Cover title.

Language: English

Descriptors: Veterinary surgery; Animal welfare

158 NAL Call No: HV4701.A35
Opposition plots to halt humane advances.
Denver, Colo. : American Humane Association, Animal Protection Division.
Advocate v. 8 (2) AGL: p. 8-9, 13. ill; 1990.

Language: English

Descriptors: Dogs; Cats; Animal welfare; Law; Shelters; Animal experiments; Research

159 NAL Call No: QL55.A1L33
An overview of agencies that developed or monitor compliance.
Shalev, M. \u Mount Sinai Medical Center, New York, NY
New York, N.Y. : Nature Publishing Company.
Lab animal v. 23 (8): p. 38, 40-42, 44; 1994 Sep. Includes references.

Language: English

Descriptors: Laboratory animals; Animal welfare; Regulations; Monitoring; Organizations; Animal experiments; Animal husbandry

160 NAL Call No: S494.5.B563B44 1991
A patent on life ownership of plant and animal research.
Belcher, Brian; Hawtin, G.
International Developement Research Center (Canada)
Ottawa, Ontario, Canada : International Development Research Centre,.
40 p. ; 25 cm. (Searching series ; 2). Cover title. Includes bibliographical references (p. 39-40).

Language: English

Descriptors: Agricultural biotechnology; Genetic engineering; Deregulation

161 NAL Call No: NBUS494.5 B563 B44 1991
A patent on life ownership of plant and animal research.
Belcher, Brian; Hawtin, G.
International Development Research Center (Canada)
Ottawa, Ontario, Canada : International Development Research Centre,.
40 p. ; 25 cm. (Searching series ; 2). Caption title. Includes bibliographical references (p. 39-40).

Language: English

Descriptors: Agricultural biotechnology; Genetic engineering; Deregulation

162 NAL Call No: 41.8 AM3
Pet overpopulation and humane education in schools and communities.
Avanzino, R.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 198 (7): p. 1237-1240; 1991 Apr01.

Language: English

Descriptors: U.S.A.; California; Dogs, cats, overpopulation, population control, private organizations, animal welfare, community education, primary education, law

163 NAL Call No: 448.8 N442
Physicians and the animal-rights movement.
Pardes, H.; West, A.; Pincus, H.A.
Boston, Mass. : Massachusetts Medical Society.
New England journal of medicine v. 324 (23): p. 1640-1643; 1991 Jun06. Includes references.

Language: English

Descriptors: Animal welfare, research, regulations, physicians, interest groups, mass media, aggressive behavior, animal testing alternatives

164 NAL Call No: SB950.8.P63 1991
Pocket guide to the humane control of wildlife in cities & towns.
Hodge, Guy R.; Bridgeland, William
Humane Society of the United States
Washington, DC (2100 L St., NW, Washington 20037) : Humane Society of the U.S. ; Helena, MT

: Falcon Press,.
vii, 116 p. : ill. ; 19 cm. Includes index.

Language: English

Descriptors: Urban pests; Wildlife pests; Animal welfare

165 NAL Call No: QL737.C22C36
Policy, program and people: the three P's to well-being.
Wolfe, T.L.
Bethesda, MD : Scientists Center for Animal Welfare.
Canine research environment / edited by Joy A. Mench and Lee Krulisch. p. 41-47; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 22, 1989, Bethesda, Md. Question and answer session p. 37. Includes references.

Language: English

Descriptors: U.S.A.; Dogs, laboratory animals, animal welfare, policy

166 NAL Call No: 41.8 AM3
The politics of formula-fed veal calf production.
Schwartz, A.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 196 (10): p. 1578-1586; 1990 May15. Includes references.

Language: English

Descriptors: U.S.A.; Calves; Meat production; Veal; Diets; Animal health; Animal welfare; Legislation

167 NAL Call No: 41.8 AM3
Potential liability for zoos and zoo veterinarians.
Hannah, H.W.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 198 (3): p. 392-393; 1991 Feb01. Includes references.

Language: English

Descriptors: Zoo animals; Zoological gardens; Veterinarians; Legal liability

168 NAL Call No: 1 Ag84Ab no.650
A Producers guide to preventing predation of livestock.
United States, Animal and Plant Health Inspection Service
Washington, D.C.? : U.S. Dept. of Agriculture, Animal and Plant Health Inspection Service; A 1.75:650.
14 p. : ill. ; 14 x 22 cm. (Agriculture information bulletin ; no. 650). Shipping list no.: 92-0567-P. "Issued July 1992", P. [2]. Includes bibliographical references (p. 14).

Language: English

Descriptors: Animal welfare; Wildlife conservation; Predatory animals

169 NAL Call No: QL737.P9W44
Projected costs for compliance with the proposed regulations.
Rich, B.A.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 75-78; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md.

Language: English

Descriptors: U.S.A.; Animal welfare, legislation, administration, costs

170 NAL Call No: QL737.P9W44
The proposed USDA/APHIS regulations.
Schwindaman, D.F.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 5-7; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md. AGL.

Language: English

Descriptors: U.S.A.; Animal welfare, laboratory animals, legislation, usda

171 NAL Call No: SF407.P7T49 1991
The psychological well-being of captive primates: protecting the public interest., 1st ed.;.
Leonard, E.A.
Washington, DC : American Psychological Association ;.
Through the looking glass: issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 202-206; 1991. Includes references.

Language: English

Descriptors: Massachusetts; Primates; Animal welfare; Regulations; Law; Licenses

172 NAL Call No: SF407.P7T49 1991
Psychological well-being: the billion-dollar solution., 1st ed.;.
Wolfle, T.L.
Washington, DC : American Psychological Association ;.
Through the looking glass: issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 119-128; 1991. Includes references.

Language: English

Descriptors: Animal welfare; Laboratory animals; Assessment; Legislation

173 NAL Call No: QL737.P9W44
The public health service's perspective of the proposed regulations.
Miller, J.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 8-11; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md.

Language: English

Descriptors: U.S.A.; Animal welfare, laboratory animals, legislation

174 NAL Call No: S494.5.B563N33
Public policy and animal biotechnology in the 1990s: challenges and opportunities.
Stenholm, C.W.
Ithaca, N.Y. : National Agricultural Biotechnology Council.
NABC report / (4): p. 25-35; 1992. In the series analytic: Animal biotechnology: opportunities and challenges. Proceedings of the fourth annual NABC meeting, May 1992, College Station, Texas. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Biotechnology; Animal experiments; Agricultural research

175 NAL Call No: Z7994.L3A5
Qualification of EYTEX data: a user's guide.
Martin, C.G.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 21 (2): p. 239-259; 1993 Apr. Includes references.

Language: English

Descriptors: Animal testing alternatives; Guidelines

Abstract: The EYTEX system has been shown to be a very useful tool in the in vitro testing of toiletry raw materials. However, the interpretation of the results is not always simple. It requires an understanding of the physicochemical characteristics of the samples and of their interactions with components of the EYTEX system. The results of 364 assays using the EYTEX standard assay, membrane partition assay, rapid membrane assay and upright membrane assay protocols have been collated against the problem areas for each method. These assays were performed on a collection of 18 pure surfactant raw materials and also on blends of surfactants. The results for 18 surfactants are reviewed according to surfactant type and interpreted with reference to the concentration-response curve for each material. This paper describes the problem areas of inhibition, interference and negative optical densities associated with the non-qualification of EYTEX assays, and shows how they have been overcome. In conclusion, some guidelines for using a concentration-response assay are given, so that the optimum concentration for a dose-response assay for a new sample can be obtained with the minimum waste of time or reagents.

176 NAL Call No: Slide no.381
Rabbits care and management in a laboratory setting. (Rabbits, care and managment in a laboratory setting.)
Harwell, James F.; Pucak, George
University of Washington, Health Sciences Center for Educational Resources
Seattle, WA : Produced and distributed by University of Washington, Health Sciences Center for Educational Resources,.
47 slides : col. + 1 sound cassette (20 min.) + 1 guide. (Laboratory animal medicine and science. Series 2 ; V-9002). Publication date on guide: 1991. Sound accompaniment compatible for manual and automatic operation.

Language: English

Descriptors: Rabbits as laboratory animals; Labo-

ratory animals; Animal welfare

Abstract: Covers importance of the environment, writing procedures for care and management to comply with the Animal Welfare Act and the Guide for the Care and Use of Laboratory Animals.

177 NAL Call No: Slide no.379
Rabbits introduction to use in research. (Rabbits, introduction to use in research.)
Van Hoosier, G. L.; DiGiacomo, R. F.
University of Washington, Health Sciences Center for Educational Resources
Seattle, WA : produced and distributed by University of Washington, Health Sciences Center for Educational Resources,.
46 slides : col. + 1 sound cassette (19 min.) + 1 guide. (Laboratory animal medicine and science. Series 2 ; V-9001). Publication date on guide: 1991. Sound accompaniment compatible for automatic and manual operation.

Language: English

Descriptors: Rabbits as laboratory animals; Animal welfare

Abstract: Presents laws and guidelines, historical use in research and testing, development of alternatives, attributes as research animals, recognition of pain and disease, and signs and significance of common diseases.

178 NAL Call No: QH442.G393
Recent developments in animal patenting.
Matthews, K.I.
Cambridge, Mass. : Council for Responsible Genetics.
Genewatch v. 8 (5/6): p. 5; 1993 Mar.

Language: English

Descriptors: U.S.A.; Livestock; Genetic engineering; Recombinant DNA; Laboratory animals; Mice; Transgenic animals; Patents; Legislation

179 NAL Call No: TS1960.G73 1991
Recommended animal handling guidelines for meat packers.
Grandin, Temple
Washington, DC : American Meat Institute, [1991?].
21 p. : ill. ; 28 cm. Cover title.

Language: English

Descriptors: Slaughtering and slaughter-houses; Livestock; Animal welfare

180 NAL Call No: 7 C16Pu no.1853/E
Recommended code of practice for the care and handling of dairy cattle.
Canadian Federation of Humane Societies, Canada, Agriculture Canada
Ottawa, Ont. : Available from Communications Branch, Agriculture Canada.
41 p. ; 23 cm. (Agriculture Canada publication ; 1853/E). Produced by Research Program Service.

Language: English

Descriptors: Dairy cattle, Dairy cattle

181 NAL Call No: S494.5.B563N33
The regulation of genetically engineered animals: going from bad to worse.
Mellon, M.
Ithaca, N.Y. : National Agricultural Biotechnology Council.
NABC report / (4): p. 165-169; 1992. In the series analytic: Animal biotechnology: opportunities and challenges. Proceedings of the fourth annual NABC meeting, May 1992, College Station, Texas. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Genetic engineering; Regulations; Animal experiments

182 NAL Call No: aQL55.B36
Regulations and requirements.
Bennett, B.T.
Beltsville, Md. : USDA, National Agricultural Library.
Essentials for animal research : a primer for research personnel / by B.T. Bennett, M.J. Brown and J.C. Schofield. p. 1-12; 1990 Apr. Includes references.

Language: English

Descriptors: U.S.A.; Laboratory animals; Animal research; Animal welfare; Regulations; Legislation; Private organizations; Accreditation

183 NAL Call No: QL737.C22C36
Regulations for canine well-being in Canada.
Rowsell, H.C.
Bethesda, MD : Scientists Center for Animal Welfare.
Canine research environment / edited by Joy A. Mench and Lee Krulisch. p. 11-18; 1990 Jan. Paper

presented at a conference held by the Scientists Center for Animal Welfare, June 22, 1989, Bethesda, Md.

Language: English

Descriptors: Canada; Dogs, animal welfare, laboratory animals, legislation

184 NAL Call No: aHV4764.U53 1992
Regulatory enforcement and animal care policy manual.
United States. Animal and Plant Health Inspection Service. Regulatory Enforcement and Animal Care
Hyattsville, Md.? : U.S. Dept. of Agriculture, Animal and Plant Health Inspection Service, Regulatory Enforcement and Animal Care; A 101.8:An 5/2.
1 v. (various pagings) : ill., map ; [1992]. Cover title. Shipping list no.: 92-0382-P. May 1992.

Language: English

Descriptors: Animal welfare

185 NAL Call No: QL737.C22C36
Regulatory requirements for exercise of dogs.
Schwindaman, D.F.
Bethesda, MD : Scientists Center for Animal Welfare.
Canine research environment / edited by Joy A. Mench and Lee Krulisch. p. 3-10; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 22, 1989, Bethesda, Md. Question and answer session p. 8-10.

Language: English

Descriptors: U.S.A.; Dogs, animal welfare, exercise, regulations, laboratory animals

186 NAL Call No: Z7994.L3A5
Report and recommendations of an international workshop on promotion of the regulatory acceptance of validated non-animal toxicity test procedures.
Balls, M.; Botham, P.; Cordier, A.; Fumero, S.; Kayser, D.; Koeter, H.; Koundakjian, P.; Lindquist, N.G.; Meyer, O.; Pioda, L.
Nottingham : Fund for the Replacement of Animals in Medical Experiments.
Alternatives to laboratory animals : ATLA v. 18: p. 339-344; 1990 Nov. Includes references.

Language: English

Descriptors: Animal testing alternatives; Acceptability; Validity

187 NAL Call No: QD415.A1X4
Report of the Validation and Technology Transfer committee of the Johns Hopkins Center for Alternatives to Animal Testing. Framework for validation and implementation of in vitro toxicity tests.
Goldberg, A.M.; Frazier, J.M.; Brusick, D.; Dickens, M.S.; Flint, O.; Gettings, S.D.; Hill, R.N.; Lipnick, R.L.; Renskers, K.J.; Bradlaw, J.A.
London : Taylor & Francis, 1971-.
Xenobiotica v. 23 (5): p. 563-572; 1993 May. Includes references.

Language: English

Descriptors: In vitro; Animal models; In vitro culture; Methodology

Abstract: The development and application of in vitro alternatives designed to reduce or replace the use of animals, or to lessen the distress and discomfort of laboratory animals, is a rapidly developing trend in toxicology. However, at present there is no formal administrative process to organize, coordinate, or evaluate validation activities. A framework capable of fostering the validation of new methods is essential for the effective transfer of new technological developments from the research laboratory into practical use. This committee has identified four essential validation resources: chemical bank(s), cell and tissue banks, a data bank, and reference laboratories. The creation of a Scientific Advisory Board composed of experts in the various aspects and endpoints of toxicity testing, and representing the academic, industrial and regulatory communities, is recommended. Test validation acceptance is contingent upon broad buy-in by disparate groups in the scientific community, academics, industry and government. This is best achieved by early and frequent communication among parties and agreement upon common goals. It is hoped that the creation of a validation infrastructure composed of the elements described in this report will facilitate scientific acceptance and utilization of alternative methodologies and speed implementation of replacement, reduction and refinement alternatives in toxicity testing.

188 NAL Call No: SF407.P7R86 1992
Research protocol & technician's manual a guide to the care, feeding, & evaluation of infant monkeys. (Research protocol and technician's manual.), 2nd ed.
Ruppenthal, Gerald C.; Sackett, Gene P.
University of Washington, Infant Primate Re-

search Laboratory
Seattle, Wash. : Infant Primate Research Laboratory at the University of Washington,.
83, [60] p. : ill. ; 28 cm. Includes bibliographical references.

Language: English

Descriptors: Primates; Primates as laboratory animals

189 NAL Call No: 472 N42
Researchers' dilemma; scientists applaud the law but admit privately that it is difficult to put into practice.
Birke, L.; Michael, M.
London, Eng. : New Science Publications.
New scientist v. 134 (1815): p. 25-28; 1992 Apr04.

Language: English

Descriptors: England; Animal welfare; Animal experiments; Legislation; Public opinion

190 NAL Call No: KF27.A33277 1992a
Review of U.S. Department of Agriculture's enforcement of the Animal Welfare Act, specifically of animals used in exhibitions hearing before the Subcommittee on Department Operations, Research, and Foreign Agriculture of the Committee on Agriculture, House of Representatives, One Hundred Second Congress, second session, July 8, 1992. (Review of US Department of Agriculture's enforcement of the Animal Welfare Act, specifically of animals used in exhibitions.)
United States. Congress. House. Committee on Agriculture. Subcommittee on Department Operations, Research, and Foreign Agriculture
Washington : U.S. G.P.O. : For sale by the U.S. G.P.O., Supt. of Docs., Congressional Sales Office; Y 4.Ag 8/1:102-75.
iii, 1071 p. : ill. ; 23 cm. Distributed to some depository libraries in microfiche. Shipping list no.: 92-0571-P. Serial no. 102-75. Includes bibliographical references.

Language: English

Descriptors: Animal welfare; Working animals; Captive wild animals

191 NAL Call No: SF407.R6R63 1994
Rodents and rabbits current research issues : proceedings of a conference sponsored by SCAW and WARDS held in Washington, D.C. on May 21, 1993.
Niemi, Steven M.; Venable, Joseph S.; Guttman, Helene N.
Scientists Center for Animal Welfare, Working with Animals Used in Research, Drugs, and Surgery
Greenbelt, MD (7833 Walker Dr., Suite 340, Greenbelt 20770) : Scientists Center for Animal Welfare ; Washington, DC (1660 L St. N.W., #612, Washington 20036) : WARDS,.
iii, 81 p. : ill. ; 28 cm. Includes bibliographical references.

Language: English

Descriptors: Rodents as laboratory animals; Rabbits as laboratory animals; Animal experimentation; Animal welfare

192 NAL Call No: Videocassette no.967
Rodents basic needs, handling and care.
Hamm, Thomas E.
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc
Symposium: Animal Welfare Compliance for Study Directors 1990 : Orlando, Fla.
Closter, N.J. : Production Plus, Inc., [1990?].
1 videocassette (18 min., 21 sec.) : sd., col. ; 1/2 in. VHS. Videotape of a presentation at Symposium: Animal Welfare Compliance for Study Directors; presented at the Eleventh Annual Meeting of the American College of Toxicology, Orlando, Fla., Oct. 1990.

Language: English

Descriptors: Rodents as laboratory animals, Animal welfare

Abstract: Training video for research personnel which includes a discussion of animal shipping, identification, viral disease monitoring, confinement caging, water, bedding and environment for rodents. Guidelines for determining when euthanasia is appropriate are provided.

193 NAL Call No: 41.8 AM3
Role of breeding regulation laws in solving the dog and cat overpopulation problem.
Sturla, K.
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 202 (6): p. 928-932; 1993 Mar15. Paper presented at the "AVMA Animal Welfare Forum: Overpopulation of unwanted dogs and cats," Nov 6, 1992, Chicago, Illinois. Includes references.

Language: English

Descriptors: U.S.A.; Dogs; Cats; Population control; Overpopulation; Animal breeding; Regulations

194 NAL Call No: 412.9 N814
The role of the federal government in humane treatment of captive wildlife.
Garbe, J.A.L.; Wywialowski, A.
Washington, D.C. : Wildlife Management Institute.
Transactions of the ... North American Wildlife and Natural Resources Conference (56th): p. 372-376; 1991.

Language: English

Descriptors: U.S.A.; Wildlife; Animal welfare; Capture of animals; Federal government; Legislation; Natural resources; Usda

195 NAL Call No: Q1.S37
Ruling on lab rodents could reduce oversight of all animal sites.
Mervis, J.
Philadelphia, Pa. : Institute for Scientific Information :.
The scientist v. 6 (4): p. 3, 10; 1992 Feb17.

Language: English

Descriptors: U.S.A.; Animal experiments; Animal welfare; Usda; Regulation

196 NAL Call No: aHV4701.A952 S.544.
Heflin, H.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 3 (3): p. 1, 7-8; 1992 Jul.

Language: English

Descriptors: U.S.A.; Animal experiments; Legislation

197 NAL Call No: Q1.S37
Scientists doubtful about new law aiming to protect animal research facilities.
Kaufman, R.
Philadelphia, Pa. : Institute for Scientific Information.
The scientist v. 6 (21): p. 1, 5; 1992 Oct26.

Language: English

Descriptors: Animal welfare; Animal experiments; Legislation; Vandalism

198 NAL Call No: 472 N42
The secret world of animal experiments.
Hampson, J.
London, Eng. : New Science Publications.
New scientist v. 134 (1816): p. 24-27; 1992 Apr11.

Language: English

Descriptors: Animal experiments; Animal welfare; Ethics; Legislation

199 NAL Call No: SF951.J65
Shocking docking: mutilation before education?
Cregier, S.E.
Lake Elsinore, Calif. : William E. Jones, DVM.
Journal of equine veterinary science v. 10 (4): p. 252-255; 1990 Jul. Includes references.

Language: English

Descriptors: Horses, tail, docking, animal welfare, law

200 NAL Call No: 410.9 P94
Social interaction in nonhuman primates: an underlying theme for primate research.
Novak, M.A.; Suomi, S.J.
Cordova, Tenn. : American Association for Laboratory Animal Science.
Laboratory animal science v. 41 (4): p. 308-314; 1991 Aug. Includes references.

Language: English

Descriptors: Primates; Social interaction; Animal experiments; Animal housing; Animal welfare

Abstract: Social living is assumed to be a critical feature of nonhuman primate existence inasmuch as most primate species live in social groups in nature. Recent USDA legislation emphasizes the importance of social contact in promoting psychological well-being and recommends that laboratory primates be housed with companions when consistent with research protocols. Our goals were to examine the link between social housing and psychological well-being and to explore the idea that research may be compromised when primates are studied in environments that vary too greatly from their natural ecological setting (individual cage housing versus group housing). Three general points emerge from these examinations. First, providing companionship may be a very potent way in which to promote psychological well-being in nonhuman primates; however, social living is not synonymous with well-being. The extent to which social housing promotes psychological well-being

can vary across species and among individual members of the same species (for example, high- and low-ranking monkeys). Secondly, housing conditions can affect research outcomes in that group-housed animals may differ from individually housed animals in response to some manipulation. Social interaction may be a significant variable in regulating the biobehavioral responses of nonhuman primates to experimental manipulations. Finally, a larger number of socially housed subjects than individually housed subjects maybe necessary for some biomedical research projects to yield adequate data analysis. Thus, social living has significant benefits and some potential costs not only for the animals themselves, but for the research enterprise.

201 NAL Call No: 410.9 P94
A social tethering system for nonhuman primates used in laboratory research.
Coelho, A.M. Jr; Carey, K.D.
Cordova, Tenn. : American Association for Laboratory Animal Science.
Laboratory animal science v. 40 (4): p. 388-394; 1990 Jul. Includes references.

Language: English

Descriptors: Primates, tethered housing, catheters, cages, social behavior, monitoring, sampling, physiological functions, animal welfare

Abstract: A housing and tether system was designed to permit sampling of body fluids, chronic monitoring of physiologic parameters (e.g. blood pressure, heart rate), performance of species typical behavioral interactions (aggression, affiliation, reproduction, etc), physical exercise (work on a motorized treadmill), assessment of water and diet consumption, as well as feces and urine collection. The system provided primates with the opportunity to engage in species typical social behavior and thereby minimized conditions which have been identified as contributing to the development of abnormal behaviors associated with individual housing. The system consisted of two parts: (a) a specialized cage system for housing small social groups of primates and (b) a tether and indwelling catheter system. Each modular system permitted four adult baboons (Papio cynocephalus anubis) to be tethered and housed in a social group. Each cage was 2.44 X 2.44 X 1.22 m (L X W X H) and could be subdivided by means of woven wire wall partitions. The tether system consisted of a backpack, a cloth jacket, a stainless-steel flexible cable containing electrical cables and catheters, and a saline infusion pump mounted on top of the cage. The system provides laboratory primates with the ability to socially interact with other nonhuman primates. The social cage tether system represents an example of a housing environment which could conform to both the letter and spirit of the new animal welfare legislation and still remain compatible with the objective of obtaining scientific data.

202 NAL Call No: 10 OU8
A socio-economic perspective on animal welfare.
McInerney, J.
Oxon : C.A.B. International.
Outlook on agriculture v. 20 (1): p. 51-56; 1991. Includes references.

Language: English

Descriptors: Animal welfare, animal production, food prices, law, livestock, socioeconomic status

203 NAL Call No: QL55.A1L3
Source of information in heart research 1978 and 1988.
Lekven, J.
London : Royal Society of Medicine Services.
Laboratory animals v. 25 (2): p. 162-167; 1991 Apr. Includes references.

Language: English

Descriptors: Animal experiments; Medical research; Heart; Regulations; Animal testing alternatives

Abstract: Several regulatory provisions have been introduced during the last decade that might interfere with the conduct of experimental medical science. In order to study their impact on the source of information within one major field, heart research, a total of 3579 abstracts from the 1978 and 1988 Scientific Sessions of the American Heart Association were analysed with respect to their source of information. There was no change in overall fractions of classical patient studies (45%) or experimental animal studies (30%) for the 2 years although regulations have been introduced in both areas. There was no evidence that the volume of circulatory physiology, a subset that extensively utilizes animal experimentation, declined relative to other subsets of the composite information base. The fraction of cell culture studies clearly rose over the period at the expense of in vitro laboratory studies but not as replacement for animal experimentation. Particularly tight regulations on experiments with selected species apparently explains

why dogs and cats are less frequently used relative to rats, rabbits, ferrets and pigs which represent the alternatives. Nevertheless, the absolute number of dog studies doubled over the 10-year period and this species still remains the most widely used experimental model in heart research. The study does not reveal directly what is actually performed within the research community but rather identifies the source of information for those studies that are considered to bring about pertinent new information in modern heart research.

204 NAL Call No: Videocassette no.969
Sources of information on animal research legislation and animal welfare Robin C. Guy.
Guy, Robin C.
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc
Symposium: Animal Welfare Compliance for Study Directions 1990 : Orlando, Fla.
Closter, N.J. : Production Plus, Inc., [1990?].
1 videocassete (14 min., 18 sec.) : sd., col. ; 1/2 in. VHS. Videotape of a presentation at Symposium: Animal Welfare Compliance for Study Directors; presented at the Eleventh Annual Meeting of the American College of Toxicology, Orlando, Fla., Oct. 1990.

Language: English

Descriptors: Animal welfare

Abstract: The sources of information for animal welfare legislation, educational materials, databases, alternatives and animal research advocacy are described and addresses provided. Includes information on organizations such as AALAS, AAALAC, AWIC, ILAR, SCAW, CAAT, FRAME, NABR, FBR, iiFAR and others.

205 NAL Call No: HV4701.A35
Spiders and snakes and carp. Oh, my!
Englewood, Colo. : American Humane Association, Animal Protection Division.
Advocate v. 12 (2): p. 20-21; 1994.

Language: English

Descriptors: Animal welfare; Acting; Guidelines; Fishes; Insects; Arachnida; Snakes

206 NAL Call No: SF405.F8S72 1991
Standard guidelines for the operation of fox farms in the United States.
Fur Farm Animal Welfare Coalition
St. Paul, Minn. : Fur Farm Animal Welfare Coalition,.
19 p. ; 23 x 11 cm. Cover title. February 1991.

Language: English

Descriptors: Foxes; Fur farming; Animal welfare

207 NAL Call No: KF3841.S73 1991
State laws concerning the use of animals in research., 3rd ed.
National Association for Biomedical Research (U.S.)
Washington, D.C. : NABR,.
83 p. ; 28 cm.

Language: English

Descriptors: Laboratory animals; Animal welfare; Laboratories

208 NAL Call No: SB950.A1V4
The status of the steel trap in North An ·ica.
Glass, J.H.
Davis, Calif. : University of California.
Proceedings ... Vertebrate Pest Conference (14th): p. 252-254; 1990 Jul. Meeting held March 6-8, 1990, Sacramento, California.

Language: English

Descriptors: North America; Animal welfare, furbearing animals, furs, legislation, trapping, traps

209 NAL Call No: QL751.6.S75 1993
Stereotypic animal behaviour fundamentals and applications to welfare.
Lawrence, Alistair B.; Rushen, Jeffrey
Wallingford [England] ; Tuscon, Ariz. : CAB International,.
x, 212 p. : ill. ; 24 cm. Includes bibliographical references and index.

Language: English

Descriptors: Animal behavior; Animal welfare; Stereotyped behavior (Psychiatry)

210 NAL Call No: HV4931.R45 1992
Stolen for profit how the medical establishment is funding a national pet-theft conspiracy.
Reitman, Judith
New York : Pharos Books,.
xiv, 258 p., [4] p. of plates : ill. ; 24 cm. Includes index.

Language: English

Descriptors: Animal experimentation; Pet theft;

Laboratory animals

211 NAL Call No: SF403.5.E86S78
Study into the legal, technical and animal welfare aspects of fur farming.
Commission of the European Communities
Luxembourg : Office for Official Publications of the European Communities.
111 p. ; 30 cm. (Deadline 92, a frontier-free Europe; Document / Commission of the European Communities). Catalogue no.: CM-60-91-935-EN-C. Contract no. 3814/12. Date: July 1990.

Language: English

Descriptors: Fur farming, Animal industry

212 NAL Call No: NBUSF403.5 E86 S78 1991
Study into the legal, technical and animal welfare [illegible] of fur farming.
[illegible]ion of the European Communities
[illegible]rg : Office for Official Publications of [illegible]opean Communities.
1[illegible] p. ; 30 cm. (Deadline 92, a frontier-free Europe; Document (Commission of the European Communities)). Catalogue no.: CM-60-91-935-EN-C. Contract no. 3814/12. Date: July 1990.

Language: English

Descriptors: Fur farming, Animal industry

213 NAL Call No: KJC6237.A36S86 1992
Summary of legislation relative to animal welfare at the levels of the European Community and the Council of Europe., Rev.
Eurogroup for Animal Welfare
Brussels : The Group,.
3 v. ; 30 cm. September 1992.

Language: English

Descriptors: Animal welfare

214 NAL Call No: ArUKF1730.W55 1991
Sustainable agriculture and the U.S. cattle industry an examination of laws, production practices and research studies.
Wilder, Julia R
1991.
i, 288 leaves ; 28 cm. "December 1991", T.p. Includes bibliographical references (p. 214-285).

Language: English

Descriptors: Sustainable agriculture; Animal industry; Agricultural laws and legislation

215 NAL Call No: 472 N42
Swiss back animal research by a whisker.
Toro, T.
London, Eng. : New Science Publications.
New scientist v. 133 (1809): p. 11; 1992 Feb22.

Language: English

Descriptors: Switzerland; Animal experiments; Animal welfare; Legislation

216 NAL Call No: QL55.I5
The symbiosis of legislation and of voluntary control, the Canadian experience.
Rowsell, H.C.
Sussex : The Institute.
Animal technology : journal of the Institute of Animal Technology v. 42 (1): p. 1-10; 1991 Apr. Includes references.

Language: English

Descriptors: Canada; Animal experiments; Laboratory animals; Teaching; Training; Testing; Legislation; Regulations; Animal welfare

217 NAL Call No: 49 J82
Teaching animal welfare in the land grant universities.
Friend, T.H.
Champaign, Ill. : American Society of Animal Science.
Journal of animal science v. 68 (10): p. 3462-3467; 1990 Oct. Includes references.

Language: English

Descriptors: Animal welfare; Teaching; Curriculum; Agricultural colleges; Bioethics; History; Legislation

218 NAL Call No: 49 J82
Teaching standard agricultural practices that are known to be painful.
McGlone, J.J.; Hicks, T.A.
Champaign, Ill. : American Society of Animal Science.
Journal of animal science v. 71 (4): p. 1071-1074; 1993 Apr. Includes references.

Language: English

Descriptors: Animal welfare; Teaching; Pain; Stress; Castration

Abstract: Animal science faculty teach, demonstrate, and ask students to perform procedures that are known to be painful. Potentially painful proce-

dures include castration, branding, dehorning, ear notching, teeth clipping, beak trimming, comb and wattle removal, and tail docking. In each case, the degree of pain experienced by an animal is generally not known. Furthermore, the consequences of animals having to endure pain are also not fully understood. A survey was conducted of animal science faculty to identify current departmental policies and practices related to castration in beef and swine production classes. Departments vary in what they require of students. Departments should set a policy to address 1) which (and how) potentially painful procedures are taught and 2) how the faculty deal with students who refuse to participate in putatively painful procedures. The institutional animal care and use committee should approve potentially painful teaching procedures after instructor and department have concluded that teaching such procedures is essential to a complete educational experience.

219 NAL Call No: HV4764.T53
Theft of dogs and cats report, 1976-1990.
Action 81 Inc
Berryville, Va. : Action 81 Inc., [1990?].
1 v. (unpaged) : ill. ; 28 cm. Cover title. Includes bibliographical references and index.

Language: English

Descriptors: Animal welfare, United States; Larceny, United States; Dogs, Law and legislation, United States; Cats, Law and legislation, United States; Dogs as laboratory animals; Cats as laboratory animals

220 NAL Call No: QH541.5.D4J6
Towards committed and collaborative camelid research.
Wilson, R.T.
London, New York, Academic Press.
Journal of arid environments v. 26 (1): p. 95-103; 1994 Jan. In the special issue: Proceedings of the First Research Coordination Meeting of the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture's Interregional Coordinated Programme for Improving the Productivity of Camelids held at the Institut Agronomique et Veterinaire Hassan II, Rabat, Morocco, 17-21 June, 1991 / edited by R.T. Wilson. Includes references.

Language: English

Descriptors: Dromedaries; Camels; Alpacas; Llamas; Vicunas; Agricultural research; Research policy; Research support; Animal husbandry; Animal production

221 NAL Call No: RA1190.R42
Toxicological considerations for protein components of biological pesticide products.
Sjoblad, R.D.; McClintock, J.T.; Engler, R.
Orlando, Fla. : Academic Press.
Regulatory toxicology and pharmacology : RTP v. 15 (1): p. 3-9; 1992 Feb. Includes references.

Language: English

Descriptors: U.S.A.; Microbial pesticides; Microbial proteins; Toxicity; Taxonomy; Manufacture; Testing; Quality controls; Guidelines; Federal government

Abstract: The toxicity of protein components of microbial pesticide products is evaluated at EPA by requiring that pesticide manufacturers conduct a thorough taxonomic evaluation of the active microbial ingredient. The requirement for acute toxicity testing by dosing laboratory animals with the active microbial ingredient and with fermentation growth medium materials provides additional information on the toxicity of protein components of microbial pesticides. The potential for toxicity from proteins associated with contaminating organisms is addressed by use of appropriate quality control procedures to minimize or prevent growth of contaminants and by screening of fermentation batches for known human/mammalian pathogens. These considerations also would apply to any biochemical pesticide that is formed via the growth of a microorganism. If a protein itself is intended for commercial use as an active pesticide ingredient, acute exposure studies and in vitro digestibility studies could be done to answer potential concerns regarding toxicity.

222 NAL Call No: QL55.I5
Training in laboratory animal medicine and science: the Canadian situation.
McLaughlin, S.
Sussex : The Institute.
Animal technology : journal of the Institute of Animal Technology v. 41 (3): p. 181-190; 1990 Dec. Includes references.

Language: English

Descriptors: Canada; Technical training, veterinary education, technicians, veterinarians, research workers, laboratory animals

Abstract: Education of technicians, investigators

and laboratory animal veterinarians is a matter of increasing concern in Canada. Three basic training models exist for technicians: full-time college programs, in-house courses and a cooperative venture involving a community college (St. Lawrence, Kingston) and participating laboratory animal facilities coast-to-coast across Canada. CALAS/ACTAL maintains a technician registry. Training of investigators is all done currently in-house. In some universities, this training is mandatory. The CCAC syllabus provides guidelines for such training courses. Currently there is not a registry for investigators. There are limited opportunities in Canada for postdoctoral training in laboratory animal medicine for veterinarians. The situation is under review by CALAM which is conducting a needs assessment. Canadian laboratory animal veterinarians seeking recognition for specialised training must do so currently by writing to the Board examination of the American College of Laboratory Animal Medicine (ACLAM).

223 NAL Call No: SF407.P7T49 1991
Translating research into workable regulations., 1st ed.;.
Bennett, B.T.
Washington, DC : American Psychological Association ;.
Through the looking glass· issues of psychological well-being in captive nonhuman primates / edited by Melinda A. Novak and Andrew J. Petto. p. 191-196; 1991. Includes references.

Language: English

Descriptors: U.S.A.; Primates; Animal welfare; Regulations

224 NAL Call No: HV4725.U5L4 1990
Trapping and poisoning., 4th ed.
Liss, C.
Washington, D.C. : Animal Welfare Institute.
Animals and their legal rights : a survey of American laws from 1641 to 1990 / with chapters by the Animal and Plant Health Inspection Service of the United States Department of Agriculture ... [et al.]. p. 157-189; 1990.

Language: English

Descriptors: U.S.A.; Furbearing animals; Wild animals; Trapping; Poisoning; Capture of animals; Animal welfare; Law

225 NAL Call No: HE9788.4.A55A54 1990
U.S. Agriculture Policy in the 1990's.
Smith, J.A.R.
Dallas, Tex.? : The Association.
Conference proceedings : Animal Transportation Association, April 22-25, 1990, 16th International Conference. p. 12-15; 1990.

Language: English

Descriptors: U.S.A.; Agricultural policy, trade policy, livestock, transport of animals, animal welfare

226 NAL Call No: LB2300.C5
U.S. eases proposed regulations on care of laboratory animals; researchers are relieved, but welfare groups are critical.
Myers, C.
Washington, D.C. : Chronicle of higher education :.
The chronicle of higher education v. 37 (1): p. A20, A26; 1990 Sep05.

Language: English

Descriptors: U.S.A.; Animal welfare; Animal experiments; Usda; Regulations

227 NAL Call No: aHV4701.A952
U.S. Food and Drug Administration animal use in testing FDA-regulated products.
Beltsville, Md. : National Agricultural Library, AWIC.
Animal Welfare Information Center newsletter v. 4 (2): p. 14; 1993 Apr.

Language: English

Descriptors: U.S.A.; Animal experiments; New products; Testing; Government organizations

228 NAL Call No: Q1.S37
U.S. officials defend animal research.
Mervis, J.
Philadelphia, Pa. : Institute for Scientific Information :.
The scientist v. 4 (1): p. 1, 4, 33; 1990 Jan08.

Language: English

Descriptors: U.S.A.; Animal experiments, animal welfare, ethics, legislation

229 NAL Call No: S494.5.B563N33
USDA regulation of animal biotechnology.
Frydenlund, J.E.
Ithaca, N.Y. : National Agricultural Biotechnology Council.

NABC report / (4): p. 149-155; 1992. In the series analytic: Animal biotechnology: opportunities and challenges. Proceedings of the fourth annual NABC meeting, May 1992, College Station, Texas. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Animal experiments; Biotechnology; Usda; Regulations

230 NAL Call No: SF406.U84
The Use of animals at Cornell University a policies and procedures manual.
Cornell University, Center for Research Animal Resources
Ithaca, N.Y.? : Cornell University, [1990?]-.
1 v. (loose-leaf) : ill. ; 30 cm. "Center for Research Animal Resources is responsible for developing this manual, updating and supplementing it as necessary, ... ", P. [5]. Includes bibliographical references and index.

Language: English

Descriptors: Laboratory animals, Animal experimentation, Animal welfare, Animal models in research

231 NAL Call No: 448.9 AM37
Use of animals in medical education.
Chicago, Ill. : The Association.
JAMA : Journal of the American Medical Association v. 266 (6): p. 836-837; 1991 Aug14. Includes references.

Language: English

Descriptors: Animal experiments, medical education, animal models, animal testing alternatives, policy, ethics

232 NAL Call No: HV4928.U84 1992
Using animals in intramural research guidelines for investigators.
NIH Animal Care and Use Committee, NIH Training Center (U.S.)
Bethesda, Md.? : NIH Animal Care and Use Committee : NIH Training Center; HE 20.3008:AN 5/3/992.
1 v. (various pagings) : ill. ; 28 cm. Cover title. Shipping list no.: 92-0682-P. Includes bibliographical references.

Language: English

Descriptors: Laboratory animals; Animal experimentation; Animal welfare

233 NAL Call No: aHV4701.A952
Validation of in vitro methods: regulatory issues.
Wilcox, N.L.
Beltsville, MD : National Agricultural Library, AWIC, 1990-.
Animal Welfare Information Center newsletter v. 5 (2): p. 1-2, 9-10; 1994. Includes references.

Language: English

Descriptors: U.S.A.; Cabt; Animal testing alternatives; Validity; Regulations; Government organizations

234 NAL Call No: KF27.A366 1989a
Veal Calf Protection Act joint hearing before the Subcommittee on Livestock, Dairy, and Poultry and the Subcommittee on Department Operations, Research, and Foreign Agriculture of the Committee on Agriculture, House of Representatives, One Hundred First Congress, first session, on H.R. 84, June 6, 1989.
United States. Congress. House. Committee on Agriculture. Subcommittee on Livestock, Dairy, and Poultry; United States, Congress, House, Committee on Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture
Washington [D.C.] : U.S. G.P.O. : For sale by the Supt. of Docs., Congressional Sales Office, U.S. G.P.O.; Y 4.Ag 8/1:101-18.
iv, 481 p. : ill. ; 24 cm. Distributed to some depository libraries in microfiche. Serial no. 101-18. Includes bibliographical references.

Language: English

Descriptors: Calves, Government policy, United States; Veal, Standards, United States; Agricultural laws and legislation, United States; Animal industry, Law and legislation, United States

235 NAL Call No: DISS F1993222
Vergleich der Tierschutzgesetzgebung in Deutschland und in der Schweiz (unter besonderer Berucksichtigung der Geschichte des Schweizer Tierschutzes, der Probleme im Vollzug und der Verbesserungsmoglichkeiten fur den deutschen Tierschutz) [Comparison of animal welfare legislation in Switzerland and in Germany with special consideration of the history of Swiss animal welfare, problems in the penal system and possibilities for improving animal protection in Germany].
Bonning, Ute

Hannover : [s.n.],.
139 p. : ill., maps ; 21 cm. Summary in English. Includes bibliographical references (p. 128-139).

Language: German

236 **NAL Call No: 472 N42**
Victorian values and animal rights.
Elston, M.
London, Eng. : New Science Publications.
New scientist v. 134 (1822): p. 28-31; 1992 May23.

Language: English

Descriptors: Animal experiments; Animal welfare; Legislation; History

237 **NAL Call No: 41.8 AM3**
The vital link: veterinarians in biomedical research and laboratory animal care.
Whitney, R.A. Jr
Schaumburg, Ill. : The Association.
Journal of the American Veterinary Medical Association v. 198 (8): p. 1385-1389; 1991 Apr15. Paper presented at the "AVMA Animal Welfare Forum: Enhancing Wellness in Animals and People," Nov. 9, 1990. Chicago, Illinois. Includes references.

Language: English

Descriptors: U.S.A.; Laboratory animals, veterinarians, animal welfare, animal experiments, veterinary medicine, law

238 **NAL Call No: aHV4701.A952**
Welfare concerns for farm animals used in agricultural and biomedical research and teaching.
Swanson, J.C.
Beltsville, MD : National Agricultural Library, AWIC, 1990-.
Animal Welfare Information Center newsletter v. 5 (1): p. 2-4; 1994. In the special issue: Farm animals in research and teaching. Includes references.

Language: English

Descriptors: Livestock; Animal welfare; Agricultural research; Medical research; Teaching materials; Accountability; Guidelines

239 **NAL Call No: QL83.4.W45 1992**
Welfare guidelines for the re-introduction of captive bred mammals to the wild.
Universities Federation for Animal Welfare, International Academy of Animal Welfare Sciences
Potters Bar, [England] : Universities Federation for Animal Welfare,.
10 p. ; 21 cm. Includes bibliographical references (p. 9-10).

Language: English

Descriptors: Wildlife reintroduction; Captive mammals; Wildlife conservation; Animal welfare

240 **NAL Call No: HV4704.W38 1990**
The Well-being of agricultural animals in biomedical and agricultural research proceedings from a SCAW-sponsored conference, Agricultural Animals in Research, held September 6-7, 1990 in Washington, D.C., with additional material provided by the authors. (Well being of agricultural animals in biomedical and agricultural research.)
Mench, Joy A.; Mayer, Stephen J.; Krulisch, Lee
Scientists Center for Animal Welfare (Washington, D.C.), Animal Welfare Information Center (U.S.)
Bethesda, MD : Scientists Center for Animal Welfare,.
viii, 112 p. : ill. ; 28 cm. February 1992. The National Agricultural Library's Animal Welfare Information Center through Specific Cooperative agreement no. 58-32U4-0-36 helped make this publication possible. Includes bibliographical references and index.

Language: English

Descriptors: Laboratory animals; Livestock; Animal experimentation; Animal welfare

241 **NAL Call No: QL737.P9W44**
Well-being of nonhuman primates in research: overview of the issues.
Swenson, R.B.
Bethesda, MD Scientists Center for Animal Welfare.
Well-being of nonhuman primates in research / edited by Joy A. Mench and Lee Krulisch. p. 60-63; 1990 Jan. Paper presented at a conference held by the Scientists Center for Animal Welfare, June 23, 1989, Bethesda, Md.

Language: English

Descriptors: U.S.A.; Animal welfare, laboratory animals, legislation

242 **NAL Call No: HM208.E5**
Whaling: a sustainable use of natural resources or a violation of animal rights?
Skare, M.

Washington, D.C. : Heldref Publications.
Environment v. 36 (7): p. 12-20, 30-31; 1994 Sep.
Includes references.

Language: English

Descriptors: Norway; Cabt; Whales; Whale meat; Animal welfare; Sustainability; Policy; Moral values

243 **NAL Call No: SK357.A1W5**
Why do we debate animal rights?
Schmidt, R.H.
Bethesda, Md. : The Society.
Wildlife Society bulletin v. 18 (4): p. 459-461; 1990.
Includes references.

Language: English

Descriptors: California; Animal welfare; Hunting; Regulations; Trapping; Wildlife management

244 **NAL Call No: QL55.A1L3**
Why modification of the LD50 test will not be enough.
Balls, M.
London : Royal Society of Medicine Services.
Laboratory animals v. 25 (3): p. 198-206; 1991 Jul.
Includes references.

Language: English

Descriptors: Uk; Animal testing alternatives; Animal experiments; Toxicity; Tests; European communities

Abstract: During the last 10 years, the 'Three Rs' (reduction, refinement and replacement) concept of alternatives has come to be widely accepted, and new national and international laws require that non-animal procedures should replace animal experimentation wherever possible. Some reduction and refinement of animal use in toxicity testing has been achieved, and nonanimal methods are becoming widely used as prescreens. However, even replacing the LD50 test by a modified and validated animal test, the Fixed Dose Procedure, will be a major achievement. In this paper it is argued that this is not good enough, and that more effort must be put into the development, validation, acceptance and use of genuine replacement alternative tests.

Author Index

ACT Department of Education and the Arts, Animal Ethics Committee 96
Action 81 Inc 219
American College of Toxicology, Meeting1990 :Orlando, Fla.),Production Plus, Inc 7, 19 48, 192, 204
Anderson, Dale L. 102
Animal Welfare Information Center (U.S),National Agricultural Library (U.S.) 26
Ascher, M.S. 155
Association for the Study of Animal Behaviour, Animal Behavior Society 75
Avanzino, R. 162
Baik, M.G. 141
Balls, M. 50, 186, 244
Basu, P. 85
Bateson, P. 39
Bauston, G. 65
Bayne, Kathryn 153
Beary, B. 106
Belcher, Brian 160, 161
Bennett, B.T. 78, 182, 223
Bidinotto, R.J. 143
Bino, G. del 70
Birbeck, A.L. 76
Birke, L. 189
Bloomsmith, M.A. 95
Boast, Carol 125
Bonning, Ute 235
Bosland, M.C. 131
Botham, P. 186
Bradlaw, J.A. 187
Brent, L.Y. 95
Bridgeland, William 164
Britz, W.E. Jr 43
Broderson, J. Roger 152
Brouwer, G. 128
Brown, M.J. 94
Brusick, D. 187
Buckwell, A.C. 128
Buntain, B. 87
Bunyan, J. 128
Butler, T.M. 105
Canadian Council on Animal Care 93
Canadian Federation of Humane Societies, Canada, Agriculture Canada 180
Carey, K.D. 201
Carlson, P. 91
Choi, C.B. 141
Clemmitt, M. 127
Clingerman, Karen J. 25, 26, 28, 29
Coelho, A.M. Jr 201
Colvin, Tom L. 79
Commission of the European Communities 211, 212
Connolly, G. 57
Cordier, A. 186
Cordle, M.K. 3
Cornell University, Center for Research Animal Resources 230
Cotter, P.A. 42
Countrywise Communication (Firm),Universities Federation for Animal Welfare 73
Cox, K. 154
Cregier, S.E. 199
Cross, Brenda M. 93
Daly, K. 72
Dawkins, Marian Stamp 75
Dent, N.J. 89
Dickens, M.S. 187
Dierauf, L.A. 67
Dierauf, L.A. \u US House of Representatives on Merchant Marine and Fisheries, Washington, DC 66
DiGiacomo, R. F. 177
Douglass, A. 138
Enui, S. 135
Elston, M. 236
Engler, K. 21
Engler, R. 221
Eurogroup for Animal Welfare 213
Ewald, Bruce H. 19
Flint, O. 187
Ford, J.J. 62
Foundation Center 90
Frazier, J.M. 187
Friend, T.H. 217
Frydenlund, J.E. 229
Frye, Fredric L. 46
Fumero, S. 186
Fur Farm Animal Welfare Coalition 206
Gallagher, S. 87
Garbe, J.A.L. 194
Garbe, Jo Anne L. 129
Garner, Robert, 37
Gavaghan, H. 12
Gettings, S.D. 187
Glass, J.H. 208
Gleason, Sean J. 25, 26
Goethals, F. 115
Goldberg, A.M. 187
Gosling, Morris 75
Grandin, Temple 179
Great Britain, Ministry of Agriculture, Fisheries and Food 157
Greeve, P. de 131

Gregory, J.A. 128
Gregory, N.G. 107
Grier, Ronald L. 79
Griffiths, P.H.M. 128
Guaitani, A. 123
Guttman, H. 5
Guttman, Helene N. 100, 191
Guy, Robin C. 204
Haile, Suzanne 147
Halverson, D. 15, 81, 83, 108
Hamline University, Advanced Legal Education 4
Hamm, Thomas E. 192
Hampson, J. 198
Hampson, J.E. 60
Hannah, H.W. 18, 133, 167
Harrison, R. 145
Harrison, R.J. 155
Harwell, James F. 176
Hawkins, E. 156
Hawtin, G. 160, 161
Hays, S.M. 11
Heflin, H. 196
Hicks, T.A. 218
Hill, R.N. 187
Hodge, Guy R. 164
Howard, B.R. 128
Howard, H.J. 62
Howley, P.M. 41
Humane Society of the United States 164
Hunt, R.D. 148
Institute of Laboratory Animal Resources (U.S.), Committee on Care and Use of Laboratory Animals 92
Institute of Laboratory Animal Resources (U.S.), Committee on Educational Programs in Laboratory Animal Science 69
Institute of Laboratory Animal Resources (U.S.), Committee on Infectious Diseases of Mice and Rats 51
International Developement Research Center (Canada) 160
International Development Research Center (Canada) 161
International Livestock Centre for Africa 135
Jones, H. 128
Jones, Ron 136
Kaufman, R. 197
Kayser, D. 186
Keeling, M.E. 103
Keller, W.L. 141
Kleinow, Kevin M. 47
Koeter, H. 186
Kohn, B. 139
Kopecky, Lois N. 79
Koundakjian, P. 186
Kovacs, Ruth 147
Krause, M. 8
Krulisch, Lee 47, 111, 240
Lawrence, Alistair B. 209
Leavitt, E.S. 15, 49, 81, 106, 108
Leavitt, Emily Stewart 34
Lekven, J. 203
Leonard, E.A. 171
Lessley, B.E. 63
Lindquist, N.G. 186
Lipner, M. E. 135
Lipnick, R.L. 187
Liss, C. 224
Lloyd, Maggie 101
Loew, F.M. 35
Loew, Franklin M.,1939- 16
Lyle, C.M. 59
MacKenzie, D. 126
Maerki, U. 53
Marcus, E. 150
Martin, C.G. 175
Massey University, New Zealand Veterinary Association, State Veterinarians Branch, New Zealand Veterinary Association, Foundation for Continuing Education 20
Masters, B. 85
Matthews, K.I. 178
Mayer, Stephen J. 240
McClintock, J.T. 221
McGlone, J.J. 218
McGreal, S. 130
McInerney, J. 202
McLaughlin, S. 222
McWilliam, A. Ann 93
Meeker, D. 32
Melcher, J. 54
Mellon, M. 181
Melvill, L.D. 113
Mench, Joy A. 240
Mervis, J. 195, 228
Meyer, O. 186
Michael, M. 189
Miller, J. 173
Miller, J.F. 42
Millican, K.G. 128
Millsaps, R. 2
Morgan, Ronald L. 48
Myers, C. 226
National Agricultural Library (U.S.) 25, 27, 29, 30

Author Index

National Agricultural Library (U.S.),Animal Welfare Information Center (U.S.) 28
National Association for Biomedical Research (U.S.) 207
National Institutes of Health (U.S.) 116
National Institutes of Health (U.S.), Office of Protection from Research Risks, NIH Office of Animal Care and Use 9
Nebraska Food Animal Care Coalition 97
New South Wales, Dept. of School Education 36
Niemi, Steven M. 191
NIH Animal Care and Use Committee, NIH Training Center (U.S.) 232
Nilsson, G. 40
Novak, M.A. 200
Nyberg, Cheryl 125
O'Donnell, M.J. 156
O'Donoghue, P.N. 77, 128
Olfert, Ernest D. 93
Olsen, M.W. 117
Olson, K.E. 68
Olson, Stan 147
Orlans, F.B. 13
Packham, C.J. 57
Pardes, H. 163
Park, C.S. 141
Party, E. 112
Patel, B. 85
Pearson, P.T. 94
Petersen, Gunner V. 20
Pew Charitable Trusts 16
Pincus, H.A. 163
Pioda, L. 186
Pohland, A.E. 144
Porta, Maria A. 125
Public Responsibility in Medicine and Research (Association), Tufts University, School of Medicine, Tufts University, School of Veterinary Medicine 10
Pucak, George 176
Quimby, Fred W. 31

Reinhardt, Christoph A. 6
Reitman, Judith 210
Renskers, K.J. 187
Rich, B.A. 169
Ritskes-Hoitinga, M. 131
Roberfroid, M.B. 115
Rollin, Bernard E. 129
Rood, M. 142
Rossbach, W. 53
Rowan, Andrew N. 16
Rowsell, H.C. 44, 45, 88, 183, 216
Ruppenthal, Gerald C. 188
Rushen, Jeffrey 209
Sackett, Gene P. 188
Schaeffer, Dorcas O. 47
Schapiro, S.J. 95
Scharmann, W. 114
Schmidt, R.H. 243
Schwartz, A. 166
Schwindaman, D. 1
Schwindaman, D.F. 170, 185
Scientists Center for Animal Welfare (Bethesda, Md.),Wards, Inc 111
Scientists Center for Animal Welfare (Washington, D.C.) 100
Scientists Center for Animal Welfare (Washington, D.C.), Animal Welfare Information Center (U.S.) 240
Scientists Center for Animal Welfare, Louisiana State University (Baton Rouge, La.), School of Veterinary Medicine 47
Scientists Center for Animal Welfare, Working with Animals Used in Research, Drugs, and Surgery 191
Seamer, John 31
Segal, M. 119
Shalev, M. \u Mount Sinai Medical Center, New York, NY 159
Siemens, A. 132
Silesia Companies, Inc 102
Silverman, J. 110
Sjoblad, R.D. 221
Skare, M. 242
Smith, C.P. 23, 24
Smith, Cynthia P. 30
Smith, Cynthia Petrie 27
Smith, J.A.R. 225
Smith, M.W. 122
Smith, P.D. 52
Stanley, V. 104
Stenholm, C.W. 61, 174
Stevens, C. 49, 64, 83, 118, 124, 140
Sturla, K. 193
Suomi, S.J. 200

Swanson, J. 21
Swanson, J.C. 22, 238
Swanson, Janice C. 25, 26
Sweeney, Noel 33
Swenson, R.B. 241
Terry, M. 14
Texas, Legislature, Joint Interim Committee on the Environment 136
Tomson, F.N. 94
Toro, T. 215
Twyne, P. 104

United States, Animal and Plant Health Inspection Service 168
United States, Animal and Plant Health Inspection Service, Animal Welfare Institute 34
United States, Congress, House, Committee on Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture 234
United States, Congress, House, Committee on Agriculture, Subcommittee on Livestock, Dairy, and Poultry 17
United States. Animal and Plant Health Inspection Service. Regulatory Enforcement and Animal Care 184
United States. Congress. House. Committee on Agriculture. Subcommittee on Department Operations, Research, and Foreign Agriculture 17, 82, 190
United States. Congress. House. Committee on Agriculture. Subcommittee on Livestock, Dairy, and Poultry 234
United States. Congress. Senate. Committee on Commerce, Science, and Transportation. Subcommittee on the Consumer 55
Universities Federation for Animal Welfare, International Academy of Animal Welfare Sciences 239
University of Washington, Health Sciences Center for Educational Resources 176, 177
University of Washington, Health Sciences Center for Educational Resources, American College of Laboratory Animal Medicine, National Agricultural Library (U.S.) 152, 153
University of Washington, Infant Primate Research Laboratory 188
Urban, O. 85
Van Hoosier, G. L. 177
Vande Pol, S.B. 41
Venable, Joseph S. 191
Vines, G. 137
Vugia, D.J. 155
Waggoner, D.B. 61
Walther, A. 53
Waterman, L. 58
Weer, Joan C. 16
West, A. 163
Whitehair, L.A. 71
Whitney, R.A. Jr 237
Wilcox, N. 149
Wilcox, N.L. 233
Wilder, Julia R. 214
Wilkerson, A. 112
Wilson, James F. 129
Wilson, M.S. 128
Wilson, R.T. 220
Withers, R.V. 59
Wolfe, T.L. 165
Wolfensohn, Sarah 101
Wolff, A. \u National Institutes of Health Animal Center, Poolesville, MD 52
Wolfle, T.L. 151, 172
Wywialowski, A. 194
Young, A.L. 3
Zulauf, C. 8
Zutphen, B.F.M van 131

Subject Index

Acceptability 186
Accountability 238
Accreditation 182
Acting 205
Acquisition 53
Administration 71, 169
Africa aggressive behavior 163
Agricultural biotechnology 160, 161
Agricultural biotechnology--Law and legislation--Minnesota 4
Agricultural biotechnology--Law and legislation--United States 4
Agricultural colleges 217
Agricultural laws and legislation 214
Agricultural laws and legislation--Minnesota 4
Agricultural laws and legislation--United States 4, 234
Agricultural policy 38, 59, 132, 225
Agricultural research 3, 132, 174, 220, 238
Allergens 58
Alpacas 220
Amino acids 141
Amphibians as laboratory animals 47
Anesthesia 94
Animal behavior 209
Animal breeding 193
Animal experimentation 6, 10, 16, 22, 45, 75, 82, 97, 101, 116, 125, 152, 191, 210, 230, 232, 240
Animal experiments 12, 14, 23, 24, 35, 52, 53, 54, 60, 74, 77, 88, 91, 94, 99, 106, 109, 121, 123, 126, 127, 131, 137, 142, 146, 150, 158, 159, 174, 181, 189, 195, 196, 197, 198, 200, 203, 215, 216, 226, 227, 229, 231, 236, 237, 244
Animal health 166
Animal housing 73, 200
Animal husbandry 44, 52, 86, 110, 159, 220
Animal industry 211, 212, 214, 234
Animal industry--Law and legislation--United States 234
Animal models 42, 45, 187, 230, 231
Animal production 3, 202, 220
Animal research 182
Animal testing alternatives 50, 115, 126, 149, 163, 175, 186, 203, 231, 233, 244
Animal waste 136
Animal welfare 1, 2, 5, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 37, 38, 39, 40, 43, 44, 45, 48, 49, 52, 63, 64, 65, 68, 69, 71, 72, 73, 74, 76, 78, 79, 81, 82, 83, 84, 86, 87, 88, 90, 91, 94, 95, 96, 97, 99, 100, 101, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 116, 118, 121, 124, 125, 126, 127, 128, 129, 130, 134, 137, 138, 139, 140, 142, 143, 145, 147, 148, 150, 151, 154, 157, 158, 159, 162, 163, 164, 165, 166, 168, 169, 170, 171, 172, 173, 176, 177, 179, 182, 183, 184, 185, 189, 190, 191, 194, 195, 197, 198, 199, 200, 202, 204, 205, 206, 207, 208, 209, 213, 215, 216, 217, 218, 219, 223, 224, 225, 226, 228, 230, 232, 236, 237, 238, 239, 240, 241, 242, 243
Animal welfare--United States 219
Animals 102, 119
Arachnida 205
Arizona 117
Asia 130
Assessment 39, 172
Authority 53
Bacterial proteins 42
Bibliographies 21, 22, 23, 24
Bioethics 9, 15, 99, 217
Biotechnology 3, 14, 32, 174, 229
Biotechnology industries--Government policy--Minnesota 4
Biotechnology industries--Government policy--United States 4
Biotechnology--United States--Patents 4
Body weight 141
Bordetella bronchiseptica 42
Bovidae 59
Bovine papillomavirus 41
Breeders' associations 122
Bull fighting 83
Cabt 8, 23, 32, 32, 60, 66, 72, 86, 87, 117, 117, 138, 139, 149, 174, 181, 229, 233, 242
Cages 114
California 113, 155, 162, 243
Calves 166, 234
Camels 220
Canada 44, 183, 216, 222
Captive mammals 239
Captive wild animals 46, 190
Capture of animals 194, 224
Caribbean 130
Castration 218
Cats 43, 49, 158, 162, 193
Cats as laboratory animals 48, 219
Cats--Law and legislation--United States 219
Central America 130
Choline 141
Cocks 83
Colonizing ability 42
Commercial farming 8
Committees 44, 52, 86, 110, 120
Committees--usda--directives 5
Community education 162
Computer software 53
Computer techniques 53

58

Congresses 100
Consciousness 107
Consumer preferences 61
Consumer attitudes 68
Consumer protection--Law and legislation--United States 55
Control 52
Control methods 57
Cosmetics 50
Costs 95
Cows 56
Coxiella burnetii 155
Criminal procedure 17
Crop damage 57
Crop production 117
Crop yield 117
Curriculum 217
Cyanocobalamin 141
Dairy cattle 180
Dairy cows 68
Dairy industry 68
Dairy technology 68
Defense 133
Deficiency 141
Deregulation 160, 161
Diet 141
Diets 166
Diffusion of information 119
Diffusion of research 119
Disease vectors 155
Disinfectants 58
(')Dna replication 41
(') Docking 199
Dogs 43, 64, 83, 158, 162, 165, 183, 185, 193
Dogs as laboratory animals 48, 219
Dogs--Law and legislation--United States 219
Domestic animals 78, 82, 97
Dromedaries 220
Drugs 14, 58
Education 76, 88, 106
Educational programs 123
Effluents 117
Eggs 145
Embryonic development 156
Endangered species 72, 80
Endowments 90, 147
England 137, 189
Enrichment 95
Environment 95
Environmental impact 56, 61, 70, 119
Environmental policy 143
Environmental protection 3, 90, 147
Enzyme activity 141
Equipment 94
Estradiol 62
Ethics 143, 198
Europe 32, 60, 77, 107, 126, 145
European communities 50, 70, 89, 126, 145, 244
Euthanasia 78, 79
Evaluation 149
Federal government 132, 194, 221
Feed intake 141
Ferrets as laboratory animals 48
Fighting 83
Fish as laboratory animals 47
Fish culture 117
Fishes 205
Folic acid 141
Follicular fluid 62
Food and nutrition controveries 56
Food contamination 144
Food prices 202
Food processing 3
Food safety 56, 68, 85
Foxes 206
Fur farming 206, 211, 212
Furbearing animals 208, 224
Furs 130
Gene expression 141
Genetic engineering 70, 119, 160, 161, 178, 181
Genetic transformation 41
Gossypium 117
Government organizations 86, 149, 227, 233
Government policy 234
Granulosa cells 62
Guidelines 74, 94, 95, 99, 120, 128, 175, 205, 221, 238
Health hazards 58
Health protection 155
Heart 203
Hens 145
History 81, 84, 108, 124, 148, 217, 236
Hormone secretion 62
Horses 104, 199
Hunting 243
Hygiene 58
Ictalurus punctatus 117
Impact 71, 105
In vitro 115, 187
In vitro culture 187
Industry 56
Interest groups 163
Insects 205
Inspection 38, 154
Insuiin-like growth factor 62
International cooperation 119

Subject Index

International organizations 120
International trade 61, 68, 130
International transport 118
Interpretation 148
Introduced species 119
Invertebrates as laboratory animals 46
Invertebrates as pets 46
Irrigated conditions 117
Irrigation water 117
Italy 123
Labeling 50
Laboratories 17, 58, 89, 91, 207
Laboratory animals 7, 9, 11, 13, 35, 44, 45, 48, 51, 52, 53, 55, 69, 71, 75, 78, 86, 88, 92, 93, 94, 98, 101, 103, 105, 110, 112, 114, 116 120, 122, 124, 125, 128, 133, 134, 151, 153, 159, 165, 170, 172, 173, 176, 178, 182, 183, 185, 207, 210, 216, 222, 230, 232, 237, 240, 241
Laboratory rearing 156
Larceny--United States 219
Law 15, 18, 22, 23, 24, 40, 49, 63, 64, 80, 81, 83, 84, 91, 104, 106, 108, 118, 124, 130, 134, 140, 158, 171, 199, 202, 224
Law enforcement 15, 91
Lawns and turf 117
Legal liability 133, 167
Legal rights 18
Legislation 12, 21, 22, 23, 24, 43, 44, 54, 58, 60, 65, 66, 67, 71, 72, 77, 87, 88, 103, 105, 106, 107, 113, 123, 124, 131, 137, 138, 142, 166, 169, 170, 172, 173, 178, 182, 183, 185, 189, 194, 196, 197, 198, 208, 215, 216, 217, 228, 236, 241
Lethal dose 120
Licenses 134, 171
Lipotropic factors 141
Liver 141
Livestock 65, 76, 85, 87, 107, 108, 135, 178, 179, 202, 225, 238, 240
Livestock farming 8
Llamas 220
Locusta migratoria 156
Low input agriculture 117
Madagascar 130
Mammary glands 141
Manufacture 221
Marine mammals 38, 138, 139, 140, 154
Maryland 91
Massachusetts 171
Mass media 163
Meat 56
Meat inspection 85
Meat production 166
Medical education 231
Medical research 203, 238
Membrane potential 156
Messenger RNA 141
Methionine 141
Methodology 187
Mice 51, 178
Mice as laboratory animals 51
Microbial pesticides 221
Microbial proteins 221
Microorganisms 119
Milk 56
Milk production 59, 68
Minks as laboratory animals 48
Monitoring 52, 110, 159
Monkeys 91
Moral values 63, 242
Mutants 42
Mycotoxins 144
Natural resources 194
Netherlands 131
New Mexico 117
New products 227
Nitrogen fixing bacteria 70
North America 208
Norway 242
Oncogenes 141
Organizations 44, 159
Ornamental plants 117
Ornithine decarboxylase 141
Ova 156
Ovaries 62
Overpopulation 162, 193
Oviposition 156
Pain 13, 39, 45, 76, 88, 218
Patents 178
People 143
Perception 35
Personnel 94
Pest control 57
Pet theft 210
Pets 79
Ph 156
Phenotypes 42
Physician 163
Pigs 62
Plan implementation and evaluation 95
Plant biotechnology--Research--Law and legislation--Minnesota 4
Plant biotechnology--Research--Law and legislation--United States 4
Plant production 3
Plants 119
Poisoning 224

Policy 52, 86, 110, 120, 146, 165, 231, 242
Politics 2, 32, 143, 151
Population control 62, 193
Postoperative care 94
Poultry 132
Poultry industry 61
Pounds 79
Predatory animals 168
Preoperative care 94
Primates 95, 130, 148, 152, 153, 171, 188, 200, 223
Primates as laboratory animals 152, 153, 188
Private organizations 162, 182
Product safety--Law and legislation--United States 55
Professional association 146
Professional ethics 74
Protection 2
Project control 52
Public agencies 11
Public authorities 133
Public opinion 189
Public schools 106
Publications 44
Q fever 155
Quality controls 221
Rabbits as laboratory animals 176, 177, 191
Range management 135
Rats 51, 141
Rats for laboratory animals 51
Recombinant DNA 119, 178
Record keeping 95
Regulation 3, 134, 195
Regulations 1, 8, 11, 14, 21, 22, 23, 24, 32, 35, 38, 70, 78, 85, 86, 87, 89, 107, 109, 112, 121, 126, 127, 139, 145, 148, 150, 151, 159, 163, 171, 181, 182, 185, 193, 203, 216, 223, 226, 229, 233, 243
Reptiles as laboratory animals 47
Research 56, 80, 88, 158, 163
Research policy 57, 119, 220
Research support 61, 220
Research workers 155, 222
Residues 56
Risk 58, 70
Rodents as laboratory animals 100, 191, 192
Safety at work 58, 107
Sanitation 58
Science education 146, 41
Sheep 155
Shelters 158
Slaughter 85, 108
Slaughtering and slaughter-houses 179
Snakes 205
Social interaction 200
Socieconomic status 202
Somatotropin 59
South America 130
Spectator events 83
Standards 87, 148
Stereotyped behavior (Psychiatry) 209
Stunning symptoms 107
Stocking density 145
Strain differences 42
Stress 218
Surgery 94
Sustainability 242
Sustainable agriculture 214
Switzerland 53, 74, 215
Taxonomy 221
Teaching 88, 216, 217, 218
Teaching materials 94, 238
Technical training 222
Technology transfer 68
Testing 120, 216, 221, 227
Tests 244
Texas 105
Tilapia 117
Toxicity 221, 244
Toxicity testing 6
Toxicology 115
Trade policy 225
Training 76, 216
Transcription 41
Transduction 42
Transgenic animals 85, 178
Transgenic plants 70
Transport of animals 98, 225
Traps 208
1
Trapping 208, 224, 243
Trends 68
U.S.A. 1, 2, 8, 12, 15, 22, 23, 24, 32, 35, 40, 43, 49, 54, 57, 59, 61, 64, 65, 66, 67, 71, 72, 80, 81, 83, 84, 86, 87, 103, 104, 106, 108, 109, 121, 124, 127, 130, 131, 134, 138, 139, 140, 142, 143, 148, 149, 151, 162, 165, 166, 169, 170, 173, 174, 178, 181, 182, 185, 193, 194, 195, 196, 219, 221, 223, 224, 225, 226, 227, 228, 229, 233, 234, 237, 241
Uk 76, 122, 128, 244
Urban pests 164
Usda 1, 12, 38, 87, 109, 121, 127, 134, 139, 170, 194, 195, 226, 229
Validity 149, 186, 233
Vandalism 197

Veal 166
Veal--Standards--United States 234
Vertebrate pests 57
Veterinarians 18, 129, 133, 167
Veterinary jurisprudence 133
Veterinary medicine 93
Veterinary surgery 157
Vicunas 220
Virulence 42
Waste disposal 112
Water management 117
Water use efficiency 117
Weight 141
Whale meat 242
Whales 242
Wild animals 118, 224
Wild birds 40, 118
Wildlife 66, 67, 194
Wildlife conservation 66, 67, 168, 239
Wildlife management 80, 243
Wildlife pests 164
Wildlife reintroduction 239
Working animals 190
Yards 65
Zoo animals 73, 134, 167
Zoological gardens 167
Zoonoses 155

Codes of Practice on Animal Welfare and International Regulations

Animal Protection Act. Statutes of Alberta, 1988, Chapter A-42.1 with amendments in force as of October 1, 1989.
Province of Alberta, Canada.
Office Consolidation, 6 pp., 1989.
Available from Animal Welfare Information Center, 10301 Baltimore Blvd., Beltsville, MD 20705-2351.
Descriptors: Alberta animal protection act review.

Animal Care: Livestock and Poultry on Today's Farm.
Christian Farmers Federation of Alberta.
Edmonton, Alberta, Canada.
23 pp., 1987.
Available from Christian Farmers Federation of Alberta, 10766 - 97 Street, Edmonton, Alberta, Canada, T5H 2M1, (403) 428-6981.
Descriptors: farm animals, history of animal care, animal management, technology, housing, husbandry, regulations and standards.

Care and management of animal visitors at school.
Hay, James R.
American Humane Association.
Denver, Colorado.
26 pp., 1987.
NAL Call Number: HV4735 H3
Descriptors: teaching safety around dogs, dogs, cats, rodents, rabbits, fish, birds, reptiles, amphibians, comparative physiological data of selected animals.

Code of recommendations and minimum standards for the sea transport of sheep from New Zealand.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 2, 12 pp., 1991.
NAL Call Number: HV4890.4 A3C63
Descriptors: sheep, pre-assembly phase, stock assembly phase, preparation phase, shipping phase, discharge phase.

Code of recommendations and minimum standards for the welfare of sheep.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 3, 13 pp., 1991.
NAL Call Number: HV4890.4 A3C63
Descriptors: sheep, feeding, husbandry, health, transport, humane destruction.

Code of recommendations and minimum standards for the welfare of dairy cattle.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 4, 13 pp., 1992.
NAL Call Number: HV4890.4 A3C63
Descriptors: dairy cattle, dehorning, tail docking, castration, feeding, housing, husbandry, health, transport, humane destruction, minimum standards.

Code of recommendations and minimum standards for the welfare of deer during the removal of antlers.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 5, 10 pp.,

1992.
NAL Call Number: HV4890.4 A3C63
Descriptors: deer, nature of deer antler, removal of antlers in velvet, veterinary supervision of velvet harvesting, training, assessment, and approval of competence, removal of hard antlers, transport of stags with antlers.

Code of recommendations and minimum standards for the welfare of animals used in rodeo events.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries. Wellington, New Zealand.
Code of Animal Welfare No. 6, 9 pp., 1992.
NAL Call Number: HV4890.4 A3C63
Descriptors: rodeo terminology, selection of rodeo animals, transport, yarding, handling, care and treatment during events.

Code of recommendations and minimum standards for the welfare of horses.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries. Wellington, New Zealand.
Code of Animal Welfare No. 7, 43 pp., 1993.
NAL Call Number: HV4890.4 A3C63
Descriptors: horses, grazing, housing, feeding, husbandry, agistment (boarding), horse hire premises, organizers of equine activities, transport, humane slaughter, body condition scoring, bodyweight estimation, bibliography.

Code of recommendations and minimum standards for the welfare of animals at the time of slaughter at licensed and approved premises.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries. Wellington, New Zealand.
Code of Animal Welfare No. 10, 17 pp., 1994.
Available from Animal Welfare Information Center, 10301 Baltimore Blvd., Beltsville, MD 20705-2351.
Descriptors: welfare of animals from time of unloading to point of stunning, welfare of animals during stunning and sticking, sites for percussive stunning, signs of a successful stun.

Code of recommendations for the welfare of exhibit animals and information for animal exhibit operators.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries. Wellington, New Zealand.
Code of Animal Welfare No. 14, 29 pp., 1994.
Available from Animal Welfare Information Center, 10301 Baltimore Blvd., Beltsville, MD 20705-2351.
Descriptors: zoos, management, acquisition and disposal of animals, nutrition, health, euthanasia, transport, security, quarantine, bibliography.

Code of recommendation and minimum standards for the welfare of animals transported within New Zealand.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries. Wellington, New Zealand.
Code of Animal Welfare No. 15, 52 pp., 1994.
Available from Animal Welfare Information Center, 10301 Baltimore Blvd., Beltsville, MD 20705-2351.

Codes of Practice on Animal Welfare and International Regulations

Descriptors: legal responsibilities under Animals Protection Act of 1960, euthanasia, commercial transport by road, sea, rail, or air, pregnant animals, disabled animals, sheep and goats, cattle, pigs, deer, horses, poultry, zoo and circus animals, feral and wild animals, dogs, animal welfare check list.

Code of recommendations and minimum standards for the welfare of bobby calves.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 8, 11 pp., 1993.
NAL Call Number: HV4890.4 A3C63
Descriptors: bobby calf, feeding, facilities, maturity and acceptability for slaughter, calf diseases and drug residues, transport, emergency humane destruction, minimum standards.

Code of practice for the care and feeding of farm animals in government approved export lairages.
Ministry of Agriculture, Fisheries, and Food.
Edinburgh, Scotland.
1 volume (unpaged), 1989.
NAL Call Number: HV4735 C6
Descriptors: farm animals, animal welfare, husbandry, transport.

Code of practice for the guidance of operators of horse, pony, and donkey markets, sales, and fairs.
Ministry of Agriculture, Fisheries, and Food.
Edinburgh, Scotland.
1 volume (unpaged), 1989.
NAL Call Number: HV4708 C6
Descriptors: livestock, marketing, animal welfare.

Code of practice on the care of farm animals and horses during their transport on roll-on/roll-off ferries.
Ministry of Agriculture, Fisheries, and Food.
Edinburgh, Scotland.
1 volume (unpaged), 1989.
NAL Call Number: HV4733 C6
Descriptors: livestock, sea transport, animal welfare.

Code of practice for the care and use of animals for experimental purposes.
National Health and Medical Research Council, Commonwealth Scientific and Industrial Research Organization, Australian Agricultural Council, Australian Government Publication Service.
Canberra, Australian Capital Territory.
35 pp., 1985.
NAL Call Number: QL55 C6
Descriptors: laboratory animals, animal welfare, husbandry, bibliography.

Code of practice for the housing and care of animals used in scientific procedures.
H.M.S.O., pursuant to Act Eliz. II 1986 C.14 Section 21 (Animals (Scientific Procedures) Act 1986)
London, England.
33 pp., 1989.
NAL Call Number: SF406.3 C58
Descriptors: laboratory animals, housing, husbandry, animal welfare, bibliography.

Codes of Practice on Animal Welfare and International Regulations

Code of practice for the transport by air of cattle, sheep, pigs, goats, and horses.
Ministry of Agriculture, Fisheries, and Food.
Edinburgh, Scotland.
15 pp., 1983.
NAL Call Number: SF89 C6
Descriptors: livestock, air transport, animal welfare.

Code of practice on the use of animals in schools.
National Science Teachers Association.
Washington, DC.
An NSTA position statement, 2 pp.. 1985.
NAL Call Number: HV4764 N3
Descriptors: animal welfare, science, teaching, students.

Code of recommendations and minimum standards for the care of animals in boarding establishments.
Animal Welfare Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
Code of Animal Welfare No. 9, 16 pp., 1993.
NAL Call Number: HV4890.4 A3C63
Descriptors: five freedoms, housing, hygiene, management, health, diet, exercise for dogs and cats, transport, disposal of animals.

Codes of practice and manual of procedures for consideration of introductions and transfers of marine and freshwater organisms.
Turner, Gary E., editor.
European Inland Fisheries Advisory Commission (EIFAC), Food and Agriculture Organization of the United Nations.
Rome, Italy.
EIFAC occasional paper no. 23, 44 pp., 1988.
NAL Call Number: SH329 F57I57
Descriptors: fish, commercial purposes, scientific studies, ecology, genetics, inspections, quarantine, pathology, handling, transport, salmonids, molluscs, eels.

National Animal Ethics Advisory Committee: Report for the period January 1, 1992 to December 31, 1993.
National Animal Ethics Advisory Committee, Ministry of Agriculture and Fisheries.
Wellington, New Zealand.
22 pp., 1994.
Available from Animal Welfare Information Center, 10301 Baltimore Blvd., Beltsville, MD 20705-2351.
Descriptors: Communication with Institutional Animal Ethics Committee (IAEC), use of animals in school, alternatives, statistics, ANZCAART, Guidelines for IAEC, animal welfare research, legal issues, animal usage report.

Recommended code of practice for the care and handling of horses in PMU operations.
Manitoba PMU Study Committee.
Winnipeg, Manitoba, Canada: Manitoba Agriculture.
13 pp., 1990.
Available from Animal Industry Branch, Agricultural Services Complex, 204-545 University Crescent, Winnipeg, Manitoba, Canada, R3H 5S6 or Ayerst Organics Ltd., 720-17th Street East, Box 980,

Brandon, Manitoba, Canada R7A 5Z9.
Descriptors: horses, foals, pregnant mare urine, housing, husbandry, harnessing, health, nutrition, transport, pasture, stalls.

Recommended code of practice for the care and handling of special fed veal calves.
Canadian Federation of Humane Societies, Coordinator.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1821/E, 43 pp., 1989.
NAL Call Number: 7 C16Pu no. 1821/E
Descriptors: veal calves, housing, nutrition, delivery and post-natal care, growing, protection, transport, processors, emergency procedures during transport.

Recommended code of practice for the care and handling of farm animals: pigs.
Connor, M.L.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1898/E, 55 pp., 1993.
NAL Call Number: 7 C16Pu no. 1898/E
Descriptors: pigs, housing, nutrition, breeding, transport, auctions, processors.

Recommended code of practice for the care and handling of dairy cattle.
Canadian Federation of Humane Societies, Coordinator.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1853/E, 41 pp., 1991.
NAL Call Number: 7 C16Pu 1853/E.
Descriptors: dairy cattle, housing, nutrition, pastures, calves, herd management, transport, processors, disabled cows, emergency procedures.

Recommended code of practice for the care and handling of poultry from hatchery to processing plant.
Canadian Federation of Humane Societies, Coordinator.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1757/E, 54 pp., 1990.
NAL Call Number: 7 C16Pu 1757/E.
Descriptors: poultry, hatcheries, layers, broilers, turkeys, housing, handling, nutrition, protection, sanitation, social environment, transport, processors.

Recommended code of practice for the care and handling of pigs.
Canadian Federation of Humane Societies, Coordinator.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1771/E, 37 pp., 1984.
NAL Call Number: 7 C16Pu no. 1771/E
Descriptors: pigs, producers, transporters, processors, housing, nutrition, farrowing facilities, postnatal care, boars, protection of piglets, transport, precautions in hot weather, ramps and chutes, unloading, prods, stunning, education of personnel.

Recommended code of practice for the care and handling of farm animals: Beef cattle.
Hurnik, F.
Ottawa, Ontario, Canada: Agriculture Canada.
Publication 1870/E, 46 pp., 1991.
NAL Call Number: 7 C16Pu no. 1870/E
Descriptors: Beef cattle, housing, nutrition, breeding, transport, cruelty, auctions, processors, disabled cattle.

U.S. Department of Agriculture
National Agricultural Library
Beltsville, Maryland 20705

OFFICIAL BUSINESS
Penalty for Private Use, $300

Postage and Fees Paid
United States
Department of Agriculture
AGR-101